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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR FEBRUARY, 1898.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

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This volume is bound without Jan., June, Sept.-
annual summary 1898; Feb., Apr.-May, Nov.-annual
summary 1899; Mar. 1900-Jan. 1902; Oct.-Nov. and
annual summary 1902; Dec. - annual summary 1903
which are unavailable.

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UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU.

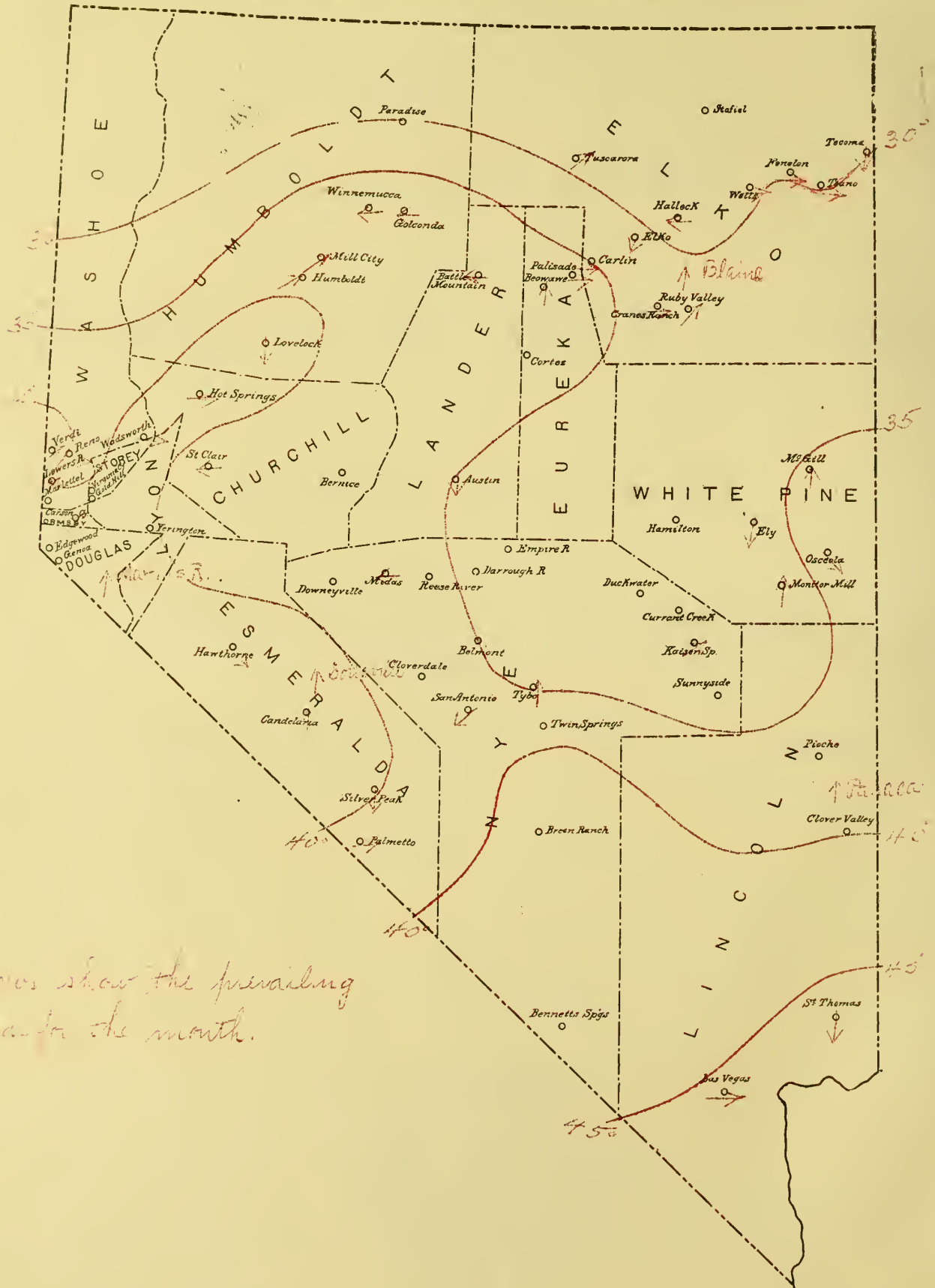
BY

R. F. YOUNG,

OBSERVER AND SECTION DIRECTOR,
CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR FEBRUARY, 1898.



Isotermes show the prevailing
temperatures for the month.

U. S. DEPARTMENT OF AGRICULTURE,

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

IN COOPERATION WITH THE NEVADA STATE WEATHER SERVICE.

Central Office,
WASHINGTON, D. C.{ WILLIS L. MOORE,
CHIEF.

NEVADA SECTION,

R. F. YOUNG, Section Director.

CARSON CITY, NEV.

VOL. XII.

CARSON CITY, NEVADA.

No. 2.

ATMOSPHERIC PRESSURE.

The pressure for February was somewhat lower than for January, though the conditions were again generally anti-cyclonic. A moderately low pressure prevailed along the coast on the 6th and 7th, moving far enough inland to cause light rain and snow over the greater portion of the State on those dates. There was little disturbance during the remainder of the month, except moderate storm conditions again from the 23d to 26th, which caused unsettled weather, but only light precipitation.

The record for the month at Carson City and Winnemucca was as follows:

Carson City—Mean, 30.12 inches; highest, 30.46, on 2d; lowest, 29.69, on 16th.

Winnemucca—Mean, 30.30 inches; highest, 30.68, on 1st; lowest, 29.82, on 6th.

TEMPERATURE.

The temperature during February, 1898, was in marked contrast to that of January, and also to that of February, 1897, being one of the mildest Februaries on record.

The temperature was unusually uniform throughout the month, there being but four or five days when it fell below normal.

During the past 20 years, notably mild Februaries occurred in 1879, 1881, 1885, 1886 and 1896.

The warmest February on record at Carson City was that of 1886, with a mean of 42, and coldest, 1883, with a mean of 24.

The warmest at Winnemucca was 1886, with a mean of 41, and coldest 24, in 1882 and 1883.

The record at other stations for the same period shows practically the same extreme for the month.

The average for the State was 36.9 degrees, which is about 5 degrees below the normal.

The highest mean was 48.8, at St. Thomas, and lowest, 29.0, at Halleck. The maximum was 79, at St. Thomas on the 27th, and lowest -2, at McGill on the 8th, and at Toano on the 9th.

Ely, Monitor Mill, Tecoma and Wells are the only other points where the temperature reached the zero mark.

The greatest daily range was 53, at Panaca; greatest monthly range, 61, at Keyser's Springs.

PRECIPITATION.

There was a marked deficiency in precipitation for the month in all sections, making the fifth successive month with precipitation below the normal. In this respect the month was the reverse of February, 1897, which was one of the wettest on record.

So far as reports indicate, there appears to be no apprehension as to the supply of water for irrigation during the crop season, since the deficiency will be largely offset by the accumulation of snow on the mountains earlier in the fall than usual.

The average for the state was 0.29 of an inch, or three-fourths of an inch less than normal.

The greatest monthly amount was 1.75 inches, at Lewers' Ranch.

None fell at Carlin, Golconda, Humboldt or Mill City, and at eight other stations the amount was too small for measurement.

The average number of days with .01 of an inch or more was 2.

WEATHER.

There was about the average amount of cloudiness during the month notwithstanding the extremely light precipitation. The clear days averaged 12; partly cloudy 10, and cloudy 6.

WIND.

The prevailing winds were from the west, though there was a large percentage of southerly and easterly winds. Gales were general over the State on 24th and 25th.

The wind record at Carson Observatory was as follows: Total movement, 3,233 miles; maximum velocity, 45 miles per hour, southwest, on the 16th. Weather Bureau Station—Total movement, 4,113; maximum velocity, 46 miles, south, on the 24th.

OBSERVERS' REMARKS.

Elko—Good many frosty mornings; dry month; more snow or rain needed to insure good crops and feed for stock. C. H. SPROULE.

Lewers' Ranch—Plowing commenced in the low ground in Washoe valley where it is dry enough. Wild flowers and violets beginning growth. MRS. ROSS LEWERS.

Keyser's Springs—Scarcely any wind during February.

EUGENE LOCK.

Midas—The month has been dry, cold and cloudy. The snow lies to considerable depth on the mountains, but little on the foothills and in the valleys. Stock has wintered well so far. GEO. NICHOLL.

Osceola—The thaw during the month took off all the snow below elevation of 7,500 feet. JAS. H. MARRIOTT.

Toano—Smart blizzard between 4 p. m. and 5:40 p. m. of 3d, with north wind. W. S. SPENCER.

Tuscarora—This has been an exceedingly mild month. All range stock looking well. Grass growing rapidly. E. H. GEISELMAN.

Wells—Snow fast disappearing, and grass starting up. Stock has done exceedingly well this winter. February, 1898, excels all previous Februaries for warm and pleasant weather. A. FISHER.

NOTES AND PERSONALS.

Through the efforts of Mr. George Nicholl, we expect soon to have a station in operation in Reese River Valley.

A station will be opened at Gold Creek, in Elko county, soon, Mr. P. W. Barton having tendered his services and kindly offered the use of his own thermometer.

Mr. Eugene Lock, observer at Keyser's Springs, will furnish the temperature record in future, using his own thermometer. This is a valuable addition to the report.

A special agent of the Agricultural Department has recently returned from Eastern Europe and Asia, having secured a large quantity of seeds from those countries which it is expected will be of great value in the arid region of this country. Among the seeds secured was that of a new variety of alfalfa, which is especially adapted to dry regions. Of this the report says: "In Central Asia a marked feature of the agriculture was found to be the native alfalfa, which is a distinct sub-species of the common alfalfa and greatly superior to it in extent of root system and capacity for resisting drouth and heat. This has been shown by actual trial side by side in Turkestan. It has been introduced by the Russian government into the dry steppes in European Russia and is also coming into cultivation in Southern Siberia." As alfalfa is one of the principal crops of this State, this may prove to be an important discovery to the farmers of Nevada.

HAIL AND SLEET.

During last winter it was noticed that the term "hail" was frequently used in noting the occurrence of what is more properly termed sleet or snow. The following explanation, from Davis' Meteorology, will give a clear understanding of these terms:

"Hail consists of compacted ice and snow, often arranged in roughly eccentric layers, taking the form of little pellets or balls called hail-stones. It does not fall in winter, and is the common accompaniment of thunderstorms. . . . Hail should be distinguished from the clear icy pellets of frozen rain (sleet), which sometimes fall in the winter season, but never in summer, and also from round pellets of snow of loose structure."

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR FEBRUARY, 1898.

Stations.		Day of Month.																															Monthly means
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
NORTHERN SECTION.																																	
Austin	Max.	39	43	39	47	44	42	36	37	41	42	42	45	48	52	48	35	37	40	47	46	40	47	50	47	48	53	52				43.8	
Blaine	Min.	19	27	23	29	32	32	26	15	15	24	30	27	30	30	32	17	19	22	36	30	18	29	34	27	32	33	32				26.3	
Blaine	Max.	46	40	47	38	41	43	35	38	41	51	53	51	51	51	44	34	39	43	48	45	41	42	48	53	50	44	54	53				45.0
Blaine	Min.	15	12	10	12	11	26	19	5	12	9	9	20	28	24	34	10	12	19	23	30	31	12	18	32	22	24	34	33				19.1
Carson City	Max.	46	44	56	50	58	53	48	48	54	54	53	60	65	66	66	36	43	48	61	60	48	50	54	50	42	57	51	55				53.6
Carson City	Min.	21	22	24	24	22	42	33	28	19	30	22	36	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26				27.0
Carson City (W. B.)	Max.	48	44	55	52	58	52	49	48	53	54	52	60	65	65	65	43	46	60	59	46	49	53	52	42	56	54	54				53.2	
Carson City (W. B.)	Min.	23	22	24	25	22	41	35	30	20	30	39	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28				28.0
Elko	Max.	40	41	43	39	41	52	40	44	40	46	44	41	49	42	45	41	46	47	50	51	47	51	54	51	49	50				46.1		
Elko	Min.	4	7	12	15	17	19	21	19	5	15	21	16	10	8	14	14	14	14	14	14	14	14	14	14	14	14	14	14				16.8
Ely	Max.	43	44	45	43	48	46	45	39	35	42	43	43	45	45	49	45	37	39	42	40	41	46	48	50	48	54	53	47				44.4
Ely	Min.	12	14	19	15	28	23	25	0	10	8	20	13	23	24	28	12	17	21	31	15	15	30	35	24	25	30	20				19.8	
Hamilton	Max.																																
Hamilton	Min.																																
Lewers' Ranch	Max.	40	45	59	50	46	46	50	51	55	50	47	57	61	64	65	54	43	47	47	60	47	49	54	49	43	53	57	53				51.5
Lewers' Ranch	Min.	15	20	47	46	35	24	20	28	25	28	25	36	29	30	31	36	23	27	25	36	29	17	24	30	30	31	27	33				28.8
Martin's Ranch	Max.	43	44	57	45	57	56	54	58	51	50	53	58	60	63	64	60	44	54	54	55	62	54	53	42	56	58	54				53.5	
Martin's Ranch	Min.	22	22	27	27	24	42	39	28	21	30	25	30	23	26	41	25	24	20	27	31	23	23	30	22	33	30	33				27.7	
Monitor Mill	Max.	43	42	47	38	44	48	42	34	38	40	43	45	48	51	49	47	37	39	41	46	39	46	47	46	48	52	48				43.6	
Monitor Mill	Min.	12	13	12	13	28	22	21	-1	8	7	22	14	19	20	17	11	10	14	25	30	14	13	29	32	23	23	24	12				17.6
McGill	Max.	45	40	46	48	47	44	43	23	32	38	42	48	54	52	51	34	42	49	51	45	49	53	53	52	54	50	52	54				46.1
McGill	Min.	10	9	21	14	21	25	27	-2	0	4	15	12	18	28	26	15	18	20	20	34	20	35	26	24	26	23	24	26				29.2
Oseola	Max.	42	51	42	44	53	51	46	33	39	41	39	43	53	60	58	35	41	52	54	54	41	44	53	54	53	56	59	57				48.1
Oseola	Min.	16	18	21	24	24	29	27	24	18	16	14	12	27	31	33	29	15	24	24	26	21	24	25	34	31	32	34				24.2	
Reno	Max.	30	37	52	45	50	50	44	42	49	51	48	57	61	63	66	58	41	47	56	60	41	50	55	50	43	54	56	53				50.3
Reno	Min.	20	22	25	20	34	30	20	30	25	30	25	36	28	28	30	40	26	30	23	32	20	31	30	27	33	30	27	26				27.6
St. Clair	Max.	32	37	38	38	38	41	53	45	45	48	51	55	57	57	58	65	36	39	52	54	63	46	47	58	62	51	56	63				50.5
St. Clair	Min.	10	15	11	14	14	30	31	30	27	23	36	27	27	27	27	27	27	24	22	29	32	20	24	28	26	37	20	25				25.2
Tuscarora	Max.	37	36	38	35	43	42	36	38	36	35	34	40	42	45	46	40	25	33	34	35	40	34	36	48	43	44	48				39.2	
Tuscarora	Min.	25	20	18	17	22	21	24	19	14	9	14	30	21	24	25	14	2	14	15	20	22	6	14	25	21	24	26	22				19.1
Wells	Max.	37	36	42	40	43	44	45	44	32	34	35	42	44	47	46	32	34	40	42	48	38	44	42	40	42	49	49				41.1	
Wells	Min.	15	10	10	22	22	28	22	0	10	6	20	22	26	20	28	10	8	5	10	12	18	30	30	25	27	31	22				17.6	
Winnemucca	Max.	41	40	43	37	42	51	46	42	46	46	51	52	52	57	60	46	38	42	51	58	39	46	55	62	46	54	58				48.4	
Winnemucca	Min.	14	18	15	22	18	32	31	32	23	28	26	36	28	30	30	28	20	22	26	29	31	21	28	34	26	32	32				26.6	
SOUTHERN SECTION.																																	
Candelaria	Max.	58	53	54	58	55	61	53	47	61	62	61	59	64	71	70	63	47	57	61	56	56	59	57	62	61	63	66	58				59.0
Candelaria	Min.	21	28	25	25	30	32	25	20	27	25	33	33	33	35	35	38	20	24	24	33	32	20	26	29	28	31	31				28.3	
Empire Ranch	Max.																																
Empire Ranch	Min.																																
Hawthorne	Max.	46	44	50	47	61	60	56	45	50	50	51	57	56	60	65	64	43	50	54	66	58	48	62	64	48	55	66	55				54.7
Hawthorne	Min.	20	25	27	28	31	38	34	22	30	27	34	32	32	32	41	28	26	24	33	39	20	25	42	42	32	31	34				30.6	
Las Vegas	Max.	47	53	52	51	49	57	55	56	49	45	48	53	58	63	65	63	52	49	52	62	63	62	60	65	64	62	65	62				56.5
Las Vegas	Min.	29	40	47	30	37	41	44	39	28	21	33	35	37	39	35	35	25	28	31	36	38	36	32	47	31	36	43				34.6	
Midas	Max.	40	47	45	44	44	44	44	40	41	40	41	48	50	54	51	47	33	38	48	45	40	66	49	45	52	52	49				46.2	
Midas	Min.	29	24	22	21	29	31	29	18	26	24	30	32	35	36	33	16	21	22	23	20	19	27	35	28	29	31	31				27.1	
Palmetto	Max.	49	49	50	52	50	54	47	41	51	51	56	56	60	64	65	63	41	50	55	50	60	52	53	50	53	54	56				52.9	
Palmetto	Min.	10	19	20	18	22	30	33	15	9	21	18	24	20	24	20	24	27	28	17	18	18	12	20	35	35	25	24				22.0	
Panaca	Max.	46	45	44	45	47	48	50	49	50	51	56	57	62	61	62	47	51	56	61	62	59	62	62	62	63	68	68				55.1	
Panaca	Min.	21	13	13	16	14	17	26	33	26	20	21	26	23	23	24	26	24	16	21	21	21	21	18	26	24	23	24				21.6	
St. Thomas	Max.	65	65																														

CLIMATOLOGICAL DATA FOR FEBRUARY, 1898.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (inches).					Sky.			Prevailing direction of wind.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.			
NORTHERN SECTION.																					
Austin—1	Lander	6,594	11	35.0	5.1	53	27	15	9	26	0.27	-0.78	0.12	2.5	3	8	12	8	S	M. D. Murphy	
Battle Mountain	Lander	4,511	28	36.2	3.2	60	24	10	2	35	0.06	-0.71	0.06	0	1	21	0	7	E	†E. A. Limbaugh	
Beowawe	Eureka	4,695	28	36.8	5.6	63	24	10	2	34	T	-0.71	T	0	0	1	0	27	S	†E. F. Wolver	
Blaine	Elko			32.0		59	28	5	8	42	0.20		0.16	1.0	2	10	9	9	S	E. J. Jones	
Carlin	Elko	4,897	28	34.3		72	25	12	2	37	0		0	0	0	9	16	3	W	†W. J. Morison	
Carson City—1	Ormsby	4,660	19	40.3	5.3	66	11	19	9	40	0.95	0.70	0.51	4.6	5	8	18	2	SW	C. W. Friend	
Carson City (W. B.)—1	Ormsby	4,720	11	40.6	4.8	65	13	20	9	37	0.80	-0.69	0.37	4.2	6	7	19	2	SW	U. S. Weather Bureau	
Clover Valley	Elko	6,000																		W. M. Angel	
Crane's Ranch	Elko	5,350	11								0.34	-0.58	0.10	0	5	19	6	3	W	W. T. Crane	
Elko—1	Elko	5,063	28	31.4	3.5	54	23	5	9	39	0.04	-0.68	0.04	0.5	1	13	14	1	NE	C. H. Sproule	
Ely—1	White Pine	6,000	11	32.3	3.2	54	26	0	8	34	0.20	-1.11	0.20	2.0	1	5	14	9	S	M. B. Garaghan	
Fenelon	Elko	6,128	11	30.0	3.2	56	27	0	9	33	0.20	-0.93	0.08	2.5	1	5	14	9	W	†F. H. Macdonell	
Golconda	Humboldt	4,392	20	38.4	3.4	60	7	18	22	29	0	-0.56	0	0	0	10	9	9	E	†J. A. Langwith	
Halleck	Elko	5,229	26	29.0	3.0	57	27	2	9	35	T	-1.09	T	T	0	5	15	8	E	†J. E. Murray	
Hamilton—1	White Pine	7,977																		Mrs. C. Timson	
Hot Springs	Churchill	4,072	11	42.6	9.0	62	12	20	3	35	T	-0.65	T	0	0	3	6	19	W	†H. A. Powers	
Humboldt	Humboldt	4,236	27	38.7		62	14	10	2	40	0		0	0	0	5	11	12	SW	†J. J. Cullen	
Lewers' Ranch—1	Washoe	5,200	11	40.2	5.6	65	15	15	1	34	1.75	-1.53	0.62	12.0	7	11	15	2	SW	E. Lewers	
Lovelock	Humboldt	3,977	7			57	10	15	3	36	T	-0.53	T	0	0	9	13	6	N	†L. M. Donelin	
Martin's Ranch—1	Douglas	4,830		40.6		64	15	20	19	40	0.54		0.30	2.0	3	26	1	1	S	J. H. Martin	
McGill—1	White Pine	5,200		37.6		54	13	-2	8	36	0.37		0.37	0	1	26	0	2	S	Jerry Kent	
Mill City	Humboldt	4,225	10	37.4		58	13	20	2	38	0		0	0	0	3	4	21	SW	†H. J. Humphrey	
Monitor Mill—1	White Pine	6,400		30.6		52	27	-1	8	36	0.43		0.43	3.5	1	7	9	12	S	Jas. B. Orr	
Osceola—1	White Pine	6,500		36.2		60	14	12	12	33	0.06		0.06	3.2	1	5	18	5	NW	Jas. H. Marriott	
Palisade	Eureka	4,821	17	38.6	9.0	56	26	13	2	37	0.30	-0.83	0.20	0	2	0	28	0	W	†W. C. Owen	
Reno—1	Washoe	4,484	28	39.0	4.1	66	15	20	1	36	1.47	0.39	0.55	1.2	5	16	6	6	W	J. J. Sullivan	
Ruby Valley	Elko	6,000	4								0.27	-0.71	0.10	2.8	5	16	8	4	SW	Miss Jennie Williams	
St. Clair—1	Churchill	4,000	7	37.6	7.3	65	16	10	1	38	0.05	-0.99	0.05	0	1	10	10	8	E	C. Allen	
Tecoma	Elko	4,812	21	30.0	1.9	56	26	0	9	40	0.18	-0.33	0.18	2.0	1	13	11	4	N	†W. T. Onyon	
Toano	Elko	5,975	29	29.6	3.1	54	15	-2	9	34	0.47	-0.37	0.38	5.0	2	11	6	11	W	†W. S. Spencer	
Tuscarora—1	Elko	6,400	8	29.2	1.7	48	24	2	17	28	0.73	-0.93	0.37	3.0	6	11	14	3	SW	E. H. Geiselman	
Verdi	Washoe	4,895	9	43.4	9.7	76	14	15	21	44	0.91	-1.27	0.55	10.0	2	18	4	6	SW	†E. L. King	
Wadsworth	Washoe	4,077	27	35.9	2.5	60	7	14	4	30	0.05	-0.49	0.05	0	1	26	2	0	W	†G. A. Macpherson	
Wells—1	Elko	5,628	28	29.4	2.9	49	26	0	8	44	0.72	-0.26	0.62	0	2	13	3	12	W	A. Fisher	
Winnemucca—1	Humboldt	4,432	20	37.5	4.5	62	24	14	1	32	0.43	-0.45	0.10	0	7	3	17	8	E	C. A. Rogers	
SOUTHERN SECTION.																					
Bunkerville	Lincoln																			Miss Emily J. Lee	
Candelaria—1	Esmeralda	5,783	9	43.6	7.9	71	14	20	9	41	0.06	-0.36	0.06	0	1	22	2	4	S	Fred Corkhill	
Darrrough Ranch	Nye	4,500																		Mrs. J. T. Darrrough	
Empire Ranch—1	Nye	6,990	6																	Miss Bessie Potts	
Hawthorne—1	Esmeralda	4,569	11	42.6	3.8	66	20	20	1	37	0.06	-0.34	0.06	0	1	9	7	12	NW	C. P. Mengel	
Keyser's Springs	Nye	5,400		31.3		65	28	4	1	33	0.10		0.10	0	1	16	11	1	SW	Eugene Lock	
Las Vegas—1	Lincoln	2,074		45.6		65	15	21	11	33	0.08		0.08	0	1	26	2	0	W	E. B. Kiel	
Midas—1	Nye	7,200		36.6		66	22	16	16	39	0.30		0.20	3.8	3	6	14	8	E	Geo. Nicholl	
Palmetto—1	Esmeralda	6,500	9	37.4	5.7	65	15	9	9	42	T	-1.74	T	T	0	26	2	0	W	Wm. Oothout	
Panaca	Lincoln			38.4		69	28	9	14	53	0.25		0.25	9	1	17	7	4	S	A. H. Wedge	
St. Thomas—1	Lincoln	1,600		48.8		79	27	24	2	45	T		T	0	0	3	24	1	N	John A. Abbott	
bSan Antonio—1	Nye	4,500		39.2		62	16	15	18	39	T		T	0	0	18	1	9	NE	Mrs. Eli Baker	
Silver Peak—1	Esmeralda	4,382		39.8		69	16	9	1	45	T		T	0	0	7	18	3	N	Chas. G. Fogg	
Sodaville—1	Nye	4,665		43.3		69	15	20	18	40	0.20		0.15	0	2	11	8	9	S	T. G. Watterson	
Tybo—1	Nye	6,500	7	35.2	1.2	54	28	15	9	27	0.15	-0.84	0.15	2.0	1	24	4	0	S	Jas. B. Gilmore	
Means or Extremes					36.9	4.6	79	27	-2	8-9	53	0.29	-0.75	0.62	1.5	2	12	10	6	W	Means or Extremes

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. †Agent S. P. R. R. Co. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

High Winds—Austin, 24; Beowawe 24; Candelaria, 24; Carson City, 5, 6, 7, 16, 18, 20, 21, 24, 25, 27; Halleck, 21, 24; Hawthorne, 21; Midas, 23, 24, 25, 26; Palmetto, 24; Reno, 7, 16; San Antonio, 24; Silver Peak, 24; Toano, 3, 16, 21; Tuscarora, 24.

Solar Halo—Carson City, 1, 8, 9, 11, 16, 17, 23, 26.

Lunar Halo—Carson City, 2, 5, 8, 26; Panaca, 6; Reno, 2, 26; Toano, 26, 27.

LATE REPORTS FOR JANUARY, 1898.

Empire Ranch—Mean temperature, 17.3; maximum, 50, on the 1st, 3d, 4th; minimum, -20, on the 11th; total precipitation, 1.09 inches.

St. Thomas—Mean temperature, 34.3; maximum, 66, on 29th; minimum, 10, on 13th; total precipitation, 1 inch.

CORRECTIONS IN JANUARY REPORT.

Verdi—Total precipitation should be 0.50 of an inch and greatest in 24 hours 0.28, on the 7th.

Hawthorne—Total precipitation should be 0.30 of an inch.

Day of Month.

[illegible]

TOTAL PRECIPITATION FOR FEBRUARY, 1898.



CARSON CITY, NEVADA:
STATE PRINTING OFFICE, -  - J. G. MCCARTHY, SUPT.
1898

U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR APRIL, 1898.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU.

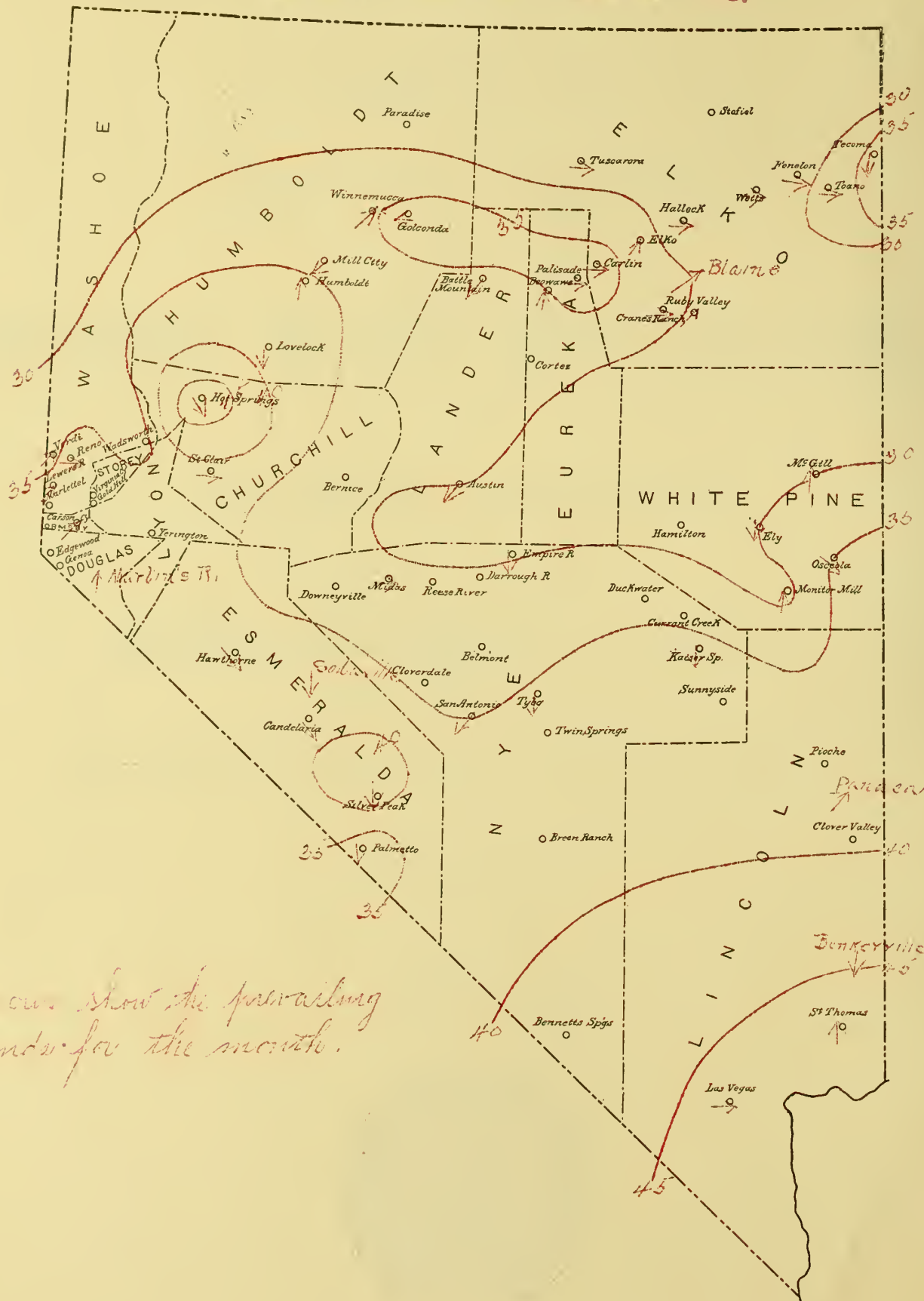
BY

R. F. YOUNG,

OBSERVER AND SECTION DIRECTOR,
CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR APRIL, 1898.



as our show the prevailing winds for the month.

U. S. DEPARTMENT OF AGRICULTURE,
CLIMATE AND CROP SERVICE
 OF THE
WEATHER BUREAU.

IN COOPERATION WITH THE NEVADA STATE WEATHER SERVICE.

Central Office, } { WILLIS L. MOORE,
 WASHINGTON, D. C. } CHIEF.

NEVADA SECTION,
R. F. YOUNG, Section Director.
 CARSON CITY, NEV.

VOL. XII. CARSON CITY, NEVADA. No. 3.

ATMOSPHERIC PRESSURE.

The pressure was above the normal during the greater part of the month. An area of low barometric pressure moved southwestward across the northern section of the State on the 9th and 10th, but was accompanied by very little precipitation. During the period from the 13th to the 22d the pressure was somewhat below the normal. This was the stormiest period of the month, and included the greater portion of the precipitation.

The record for the month at Carson City and Winnemucca was as follows:

Carson City—Mean, 30.07 inches; highest, 30.47, on 23d; lowest, 29.68, on 9th.

Winnemucca—Mean, 30.12 inches; highest, 30.54, on 22d; lowest, 29.63, on 25th.

TEMPERATURE.

The mild temperature, which prevailed during February, continued through the first decade of March. During the remainder of the month the temperature was almost continuously below the normal, thus the month, as a whole, was considerably colder than the average March. The coldest period was from the 15th to the 22d, during which the temperature fell to zero or below in Elko, White Pine and the north portion of Nye counties. During the past nineteen years there have been only three colder Marches, viz., 1880, 1882 and 1897.

The monthly average for the State was 35.0 degrees, which is about 4 degrees below the normal. The highest mean was 48.8, at St. Thomas, and lowest, 27.0, at Fenelon and Tuscarora. The maximum was 79, at St. Thomas on the 4th, and minimum, 10 below zero, at Wells, on the 15th. The greatest daily range was 58, at Carlin; greatest monthly range, 74, at Tuscarora.

PRECIPITATION.

The most important feature of the weather for the month, from an agricultural standpoint, was the continued deficiency in precipitation. There will doubtless be sufficient water for early crops, but the late crops of alfalfa are certain to suffer in many localities. Since November 1st the deficiency amounts to about 2½ inches. In other words the State has had only about three-fifths of the average amount of moisture during the past five months.

The average for March was 0.63 of an inch, or about half an inch less than the usual amount. The greatest monthly amount was 2.01, at Ely, and only a trace fell at several stations in the south section. The greatest in any twenty-four hours was 1 inch, at Panaca on the 10th. Average number of days with .01 or more, 4.

WIND AND WEATHER.

There was more sunshine than usual. The average number of clear days for the State was 14; partly cloudy, 9; cloudy, 8.

The prevailing winds were from the west. Total movement of wind at Carson Observatory was 4,069 miles; extreme velocity, 60 miles, southwest, on the 12th. At Weather Bureau Station: Total movement, 5,504 miles; maximum, 54 miles, southwest, on the 25th.

OBSERVERS' REMARKS.

Blaine—No farming done here, except a few acres harrowed in the early part of March. There will be a number of acres of grain put in if the prospect of rain will warrant it. Seeding will begin in a few days. Wheat and barley will predominate for grain crops. E. J. JONES.

Candelaria—Fish Lake Valley farmers have started to plow. Fruit not far enough advanced to be injured by frost. Water will be short this summer, owing to a very light fall of snow in the White Mountains. FRED CORNHILL.

Crane's Ranch—Stock doing well; about ready to turn on the range. No farm work done yet. Cropping may be late. Too early to say about fruit yet, but think small fruit favorable. W. T. CRANE.

San Antonio—Spring plowing all done, but no wheat sown yet. Fruit trees not in bud. Grass growing nicely on the foot hills. There has been very little loss in stock so far. Cows with young calves are in poor condition. Mrs. ELLI BAKER.

Elko—Another unusually cold month; came in and went out clear, middle of month stormy. C. H. SPOULE.

Empire Ranch—Plowing not commenced yet. Range stock in fair condition; the loss so far has been very light. MISS BESSIE POTTS.

Las Vegas—On the 26th, windstorm in valley and snow in the mountains. All fruit and early vegetables killed. E. B. KIEL.

Lewers' Ranch—First part of month was very favorable for plowing, but last two weeks heavy snow and cold stopped work. Seeding began on 27th where ground was not too wet. Fruit buds kept back with the cold. Very little snow in the mountains. Mrs. ROSS LEWERS.

Martin's Ranch—Plowing and seeding is well advanced, but blighting north winds retard vegetation. J. H. MARTIN.

Midas—Some plowing was done in the early part of the month, but abandoned owing to the severe cold weather, the ground being frozen to the depth of a foot or more. No fruit raised in this section. Stock running on the range have done fairly well so far. GEO. NICHOLL.

Monitor Mill—Stock doing well on the ranges. No farming of any kind has been done yet. No fruit trees in this section. JAMES B. ORR.

McGill—Stock in fair condition; prospects for fruit, wheat and other crops favorable. Very little progress in farm work. Ground covered with snow to sufficient depth to protect crops from 1st to 20th. JERRY KENT.

Reno—Winter wheat sown last of September and first of October from six to eight inches high and looking fine. Alfalfa crop looks well. During last week farmers in this valley have set out much garden truck—onions, radishes, etc.; also preparing to sow wheat. J. J. SULLIVAN.

Toano—On the 13th grass noticeable in brush and prairie, but not doing well last of month on account of cold weather. Month closes with beautiful weather. W. S. SPENCER.

Wells—Stock did quite well the past month. Cold weather kept fruit back. Very little grain sown yet. Snow on the mountains greatly increased, which will greatly add to agricultural prospects. A. FISHER.

St. Thomas—An exceptionally cold and windy month. All fruits and early vegetables are killed. Alfalfa and grain look fairly well. Range cattle are quite poor. JOHN A. ABBOTT.

Tuscarora—This has been an excellent winter on range stock. Cattle looking well. Grass growing rapidly. E. H. GEISELMAN.

WEATHER AND CROP PROGRESS.

March was generally an unfavorable month for farm work, with the exception of the first ten days. Plowing was begun in February and had made considerable progress, when the cold and stormy weather beginning about the 10th interfered. Very little was accomplished in the northern counties during the remainder of the month. Winter wheat is looking well. Some grain sown the last few days in Ormsby, Douglas, Lyon and Washoe counties.

Alfalfa has made very little growth during the month except in Lincoln county, where it was injured slightly by frost the last week.

Stock wintered exceptionally well, the loss being unusually light in all sections.

No injury has been done to fruit so far except in Lincoln county. In other sections the buds are not far enough advanced to be affected by the freezing weather.

The only adverse feature in the agricultural outlook at the close of the month is the contemplated shortage of water for irrigation.

Stations.		Day of Month.												Months.																				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
NORTHERN SECTION.																																		
Austin	Max.	45	50	52	53	52	54	56	52	46	34	41	53	49	32	27	24	29	28	35	37	34	19	39	43	44	27	36	31	40	46	50	40.7	
	Min.	25	32	34	31	30	32	34	30	30	35	46	25	35	39	15	4	10	8	19	21	16	5	5	22	26	15	17	22	22	26	20.0		
Blaine	Max.	43	49	50	57	50	58	59	53	48	35	45	55	39	13	18	32	30	28	41	41	36	26	39	45	47	32	41	40	44	53	53	44.5	
Carson City	Min.	23	26	27	24	27	30	30	32	37	42	55	26	35	15	15	-5	-9	-9	19	26	19	14	1	3	45	14	13	19	11	18	22	22	16.5
Carson City (W. B.)	Max.	57	61	65	67	67	69	62	57	42	29	53	58	42	17	22	36	35	39	49	38	38	35	52	54	41	39	51	50	56	61	65	50.0	
	Min.	24	24	23	27	27	30	30	36	40	47	56	40	39	32	18	18	17	17	21	27	39	34	51	53	43	38	51	49	55	58	63	49.9	
Elko	Max.	56	62	63	63	65	66	60	56	41	21	53	56	40	22	33	36	46	46	39	38	41	27	12	41	47	42	47	51	49	55	63	23.3	
	Min.	27	27	33	30	30	34	39	48	48	48	45	42	19	12	18	12	12	17	21	27	38	13	12	41	26	12	21	24	24	28	28	40.3	
Ely	Max.	48	52	49	50	52	54	52	54	52	48	45	42	43	38	46	40	41	39	38	41	38	41	47	45	49	32	51	49	47	49	49	46.3	
	Min.	28	32	34	36	37	36	37	36	37	40	50	30	36	34	32	4	6	6	3	6	10	3	6	4	45	30	35	14	14	15	15	43.3	
Hamilton	Max.	50	54	57	56	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	16.5	
	Min.	20	25	29	27	25	29	35	27	17	15	20	17	5	15	15	8	17	0	7	15	3	4	12	25	18	2	13	10	16	20	25	25	
SOUTHERN SECTION.																																		
Levers' Ranch	Max.	55	62	62	63	66	62	62	63	66	62	54	55	42	40	38	40	44	45	45	36	33	33	40	54	40	38	47	46	55	59	63	49.5	
	Min.	27	35	35	38	31	37	34	34	30	16	21	27	14	17	19	11	9	11	16	30	21	6	6	26	25	8	13	27	24	25	28	21.9	
Martin's Ranch	Max.	53	55	60	63	62	64	61	67	57	44	54	58	52	48	47	36	42	40	40	40	42	37	52	70	47	50	49	57	59	62	52	52	49.5
	Min.	25	33	33	38	27	33	37	35	20	21	31	38	19	13	13	13	13	20	23	22	22	37	52	70	47	50	49	57	59	62	52	52	49.5
Monitor Mill	Max.	44	48	53	52	52	57	56	55	40	35	40	48	47	32	36	39	42	38	40	40	38	22	22	47	45	37	37	38	43	51	42.1	42.1	
	Min.	17	19	26	22	26	29	34	23	17	12	18	17	3	6	8	11	12	3	8	12	1	1	18	44	47	16	15	9	6	11	20	14.6	
McGill	Max.	46	51	57	56	54	60	57	54	51	35	44	52	49	35	33	37	38	41	46	33	34	34	34	47	47	35	39	39	48	51	51	41.1	
	Min.	20	22	30	25	22	25	26	25	17	16	17	15	14	18	13	9	13	8	7	15	5	2	6	46	35	39	33	41	59	51	23	16.1	
Osceola	Max.	40	50	59	61	62	62	67	65	40	36	35	40	36	16	14	16	12	16	18	25	15	7	50	54	41	38	50	48	54	51	20	23.6	
	Min.	30	26	39	35	36	35	36	35	37	32	32	32	27	20	21	19	16	16	48	30	15	10	12	41	28	28	28	50	48	54	61	49.1	
Reno	Max.	55	56	59	64	62	63	63	63	59	57	57	57	57	35	41	32	33	38	40	48	38	32	32	50	54	16	15	27	20	25	24	23.2	
	Min.	27	25	34	28	28	30	32	32	22	12	23	23	27	20	21	19	14	16	25	30	15	10	12	41	28	28	28	50	48	54	61	49.1	
St. Clair	Max.	55	54	59	61	64	63	65	63	59	58	54	51	63	48	38	34	40	44	44	40	53	34	34	47	47	47	47	51	49	54	59	50.8	
	Min.	24	24	30	30	36	36	36	36	32	22	22	22	22	19	14	14	14	14	27	30	22	9	11	20	37	20	16	22	21	26	23.6		
Tuscarora	Max.	42	52	44	45	45	53	57	67	43	38	38	38	52	43	38	35	28	31	36	35	34	36	34	41	38	35	25	35	40	42	40	40.9	
	Min.	17	18	19	25	28	29	37	32	20	13	11	23	11	10	-7	13	-5	0	11	7	11	-5	-5	-5	4	12	13	2	4	15	15	13.9	
Wells	Max.	42	50	51	55	50	56	59	43	40	55	40	54	28	37	36	38	35	35	33	34	32	35	37	47	47	37	33	32	43	45	52	41.6	
	Min.	21	32	30	31	32	30	29	20	17	15	23	15	15	12	10	0	0	19	25	16	3	0	0	28	48	48	18	10	18	25	25	16.6	
Winnemucca	Max.	52	56	58	61	61	63	60	61	47	42	51	59	34	34	30	32	37	37	38	40	47	31	31	48	54	36	48	49	55	61	47.6		
	Min.	26	28	32	34	34	34	34	34	27	18	16	16	19	19	22	21	14	14	22	29	22	22	31	48	26	14	17	23	20	22	22	21.1	
SOUTHERN SECTION.																																		
Candelaria	Max.	60	59	58	72	70	62	68	69	56	47	52	64	49	50	38	37	39	47	47	54	45	30	47	57	51	40	49	53	59	64	52.4		
	Min.	28	31	34	35	31	31	37	37	34	20	20	43	31	19	12	12	17	34	38	22	18	45	40	23	28	17	16	26	24	31	31	23.1	
Empire Ranch	Max.	47	45	54	54	54	55	55	55	52	49	49	53	53	15	14	4	10	10	10	10	16	16	25	45	49	44	10	35	35	41	46	41.6	
	Min.	25	22	29	31	32	32	36	38	24	15	20	23	23	15	11	4	2	34	38	27	27	0	7	40	40	44	20	28	28	34	34	19.4	
Hawthorne	Max.	55	60	58	63	64	61	66	69	58	42	52	66	53	48	41	37	42	42	47	54	45	32	43	60	51	39	49	46	53	58	64	51.8	
	Min.	29	28	38	38	32	36	41	41	37	28	44	46	46	24	19	25	25	25	25	25	28	28	40	60	51	39	49	46	53	58	64	26.8	
Las Vegas	Max.	66	60	62	68	67	65	65	65	60	50	41	41	48	45	40	32	30	30	39	47	51	47	43	61	62	48	28	28	35	34	34	56.7	
	Min.	40	41	43	40	41	43	43	43	33	35	41	41	48	27	20	14	16	16	16	26	26	28	40	60	51	39	49	46	53	58	70	56.7	
Midas	Max.	50	54	52	49	55	56	57	53	51	35	44	51	58	30	24	6	30	30	39	47	51	47	43	61	62	48	28	28	35	34	34	51.9	
	Min.	29	33	31	32	36	34	30	34	30	19	28	33	33	18	11	7	16	16	16	26	26	28	40	60	51	39	49	46	53	58	70	56.7	
Palmetto	Max.	55	58	57	63	65	60	64	60	54	35	51	58	58	42	35	32	42	42	47	54	45	30	43	61	62	48	28	28	35	34	34	51.9	
	Min.	20	20	23	26	25	31	25	31	25	17	28	32	32	18	12	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	20.5	
Panaca	Max.	70	67	65	66	70	68	70	68	66	50	57	69	64	64	48	4	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	16.5	
	Min.	26	24	25	26	28	28	32	32	26	20	20	36	36	29	25	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	16.5	
St. Thomas	Max.	70	75	74	78	77	77	77	74	74	50	61	68	65	63	63	63	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	56.0	
	Min.	32	34	35	36	37	37	37	35	35	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	22.6	
San Antonio	Max.	58	62	60	64	66	66	66	66	66	50	57	69	64	64	48	4	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	69.3	
	Min.	25	31	30	34	35	35	35	35	35	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	28.2	
Silver Peak	Max.	63	63	65	66	70	68	70	67	60	50	57																						

CLIMATOLOGICAL DATA FOR MARCH, 1898.

Stations.	Counties.	Elevation (feet).	Length of record (year).	Temperature (degrees Fahrenheit).							Precipitation (inches).					Sky.					Observer.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.	Prevailing direction of wind.		
NORTHERN SECTION.																					
Austin—1	Lander	6,594	11	30.1	—1.2	56	7	3	23	36	1.43	+0.05	0.53	16.0	7	9	11	11	NW	M. D. Murphy	
Battle Mountain	Lander	1,511	28	33.9	—7.0	62	6	8	22	31	0.55	—0.20	0.28	6.0	4	23	0	8	NW	†F. A. Linbaugh	
Beowawe	Eureka	4,695	28	34.1	—6.8	68	7	10	22	38	0.53	—0.10	0.18	6.0	5	2	0	29	S	†E. F. Wolver	
Blaine	Elko			30.5		59	7	—9	18	50	0.97		0.37	10.5	4	11	12	8	SW	E. J. Jones	
Carlin	Elko	4,897	28	35.6	+0.1	73	9	5	16	58	0.17	—0.43	0.38	5.0	2	22	9	0	W	†W. J. Morison	
Carson City—1	Ormsby	4,660	19	36.4	—3.6	67	6	9	26	41	1.60	—0.52	0.34	13.2	7	15	14	2	SW	C. W. Friend	
Carson City (W. B.)—1	Ormsby	4,720	11	36.6	—5.4	65	6	12	26	39	0.99	—0.34	0.40	12.2	8	14	14	3	W	U. S. Weather Bureau	
Clover Valley	Elko	6,000									0.58	—1.06	0.17	5.3	6	10	15	6	W	W. M. Angel	
Crane's Ranch	Elko	5,350	11								0.55	—0.27	0.28	6.0	4	11	19	1	SW	W. T. Craue	
Elko—1	Elko	5,063	28	30.8	—4.5	54	6	—1	16	46	0.55	—0.27	0.28	6.0	4	11	19	1	SW	C. H. Sproule	
Fly—1	White Pine	6,000	11	29.9	—2.2	57	5	—1	22	37	2.01	—0.02	0.65	20.5	7	6	12	13	N	M. B. Garaghan	
Fenelon	Elko	6,128	11	27.0	—7.6	55	5	0	16	26	1.11	—0.10	0.37	15.5	9	9	8	14	W	†F. H. Macdonell	
Gofconda	Humboldt	4,392	20	35.5	—7.0	62	29	12	16	40	0.27	—0.32	0.18	3.0	2	22	9	0	E	†J. A. Langwith	
aHalleck	Elko	5,229	26	28.9	—7.9	56	5	9	22	29	0.35	—0.46	0.18	4.9	4	10	6	14	W	†J. E. Murray	
Hamilton—1	White Pine	7,977																		Mrs. C. Timson	
Hot Springs	Churchill	4,072	11	45.9	+4.6	65	5	20	23	33	T	—0.25	T	T	0	14	1	16	NW	†H. A. Powers	
Humboldt	Humboldt	4,236	27	37.7	—4.3	65	31	14	22	35	0.23	—0.39	0.14	2.5	2	16	11	4	S	†J. J. Cullen	
Lewers' Ranch—1	Washoe	5,200	11	35.7	—3.7	66	6	6	22	35	1.57	—1.48	0.56	18.8	6	17	10	4	SW	E. Lewers	
Lovelock	Humboldt	3,977	7	37.7	—6.1	64	12	19	22	41	0.15	—0.03	0.07	0.8	4	16	10	5	N	†L. M. Donelin	
Martin's Ranch—1	Douglas	4,830		37.5		63	4	10	26	52	0.56		0.15	5.9	6	24	5	2	S	J. H. Martin	
McGill—1	White Pine	5,200		30.5		60	6	—4	26	39	0.64		0.15	7.6	6	16	8	7	S	Jerry Kent	
Mill City	Humboldt	4,225	10	34.4	—6.4	65	5	10	18	35	0.27	—0.35	0.09	3.0	3	15	4	12	NE	†H. J. Humphrey	
Monitor Mill—1	White Pine	6,400		28.4		57	6	—1	22	35	1.30		0.46	18.5	6	7	10	14	S	Jas. B. Orr	
aOseola—1	White Pine	6,500		34.6		62	5	7	22	38	1.37		0.37	15.0	9	10	14	7	NW	Jas. H. Marriott	
Palisade	Eureka	4,821	17	37.3	—0.3	67	3	—1	16	49	0.46	—0.25	0.37	5.0	2	4	27	0	W	†W. C. Owen	
Reno—1	Washoe	4,484	28	36.3	—4.7	64	4	10	22	40	0.65	0	0.17	5.8	7	20	7	4	W	J. J. Sullivan	
Ruby Valley	Elko	6,000	4								0.88	—0.14	0.33	9.8	8	13	11	7	SW	Miss Jennie Williams	
St. Clair—1	Churchill	4,000	7	37.2	+1.5	65	7	9	22	44	0.25	—1.27	0.17	4.0	3	17	14	0	W	C. Allen	
Tecoma	Elko	4,812	21	34.6	—3.6	60	4	20	10	30	0.22	—0.20	0.18	2.5	2	9	7	15	N	†W. T. Onyon	
Toano	Elko	5,975	29	31.6	—2.9	60	7	8	22	24	0.72	—0.15	0.18	8.0	6	9	4	18	W	†W. S. Spencer	
Tuscarora—1	Elko	6,400	8	27.0	—5.8	67	7	—7	16	46	0.84	—1.47	0.50	5.2	5	17	13	1	W	E. H. Geiselman	
Verdi	Washoe	4,895	9	33.5	—4.2	74	6	8	17	50	0.24	—1.37	0.18	2.8	3	17	7	7	SW	†E. L. King	
Wadsworth	Washoe	4,077	27	33.6	—11.4	68	31	8	18	32	0.60	+0.29	0.42	6.5	2	24	1	6		†G. A. Macpherson	
Wells—1	Elko	5,628	28	29.1	—7.1	59	7	—10	15	50	1.02	—0.05	0.30	10.2	6	16	2	13	W	A. Fisher	
Winnemucca—1	Humboldt	4,432	20	34.4	—5.5	63	16	4	16	40	0.75	—0.13	0.24	4.3	8	10	15	6	SW	C. A. Rogers	
SOUTHERN SECTION.																					
Bunkerville	Lincoln										T		T	T	0	13	8	10	N	Miss Emily J. Lee	
Candelaria—1	Esmeralda	5,783	9	37.8	—2.3	72	4	9	22	44	0.17	—0.11	0.11	2.0	2	17	3	11	NW	Fred Corkhill	
Darrough Ranch	Nye	4,500																		Mrs. J. T. Darrough	
Empire Ranch—1	Nye	6,990	6	30.5	+0.1	55	6	0	22	38	0.83	0	0.29	9.5	6	14	4	13	N	Miss Bessie Potts	
Hawthorne—1	Esmeralda	4,569	11	39.3	—1.3	66	7	13	23	38	0.38	+0.03	0.24	3.5	4	12	14	5	NW	C. P. Mengel	
Keyser's Springs	Nye	5,400		37.6		68	7	12	23	40	0.21		0.09	1.5	3	15	15	1	N	Eugene Lock	
Las Vegas—1	Lincoln	2,074		45.8		70	31	20	23	41	T		T	0	9	22	7	2	W	E. B. Kiel	
Midas—1	Nye	7,200		31.2		57	7	0	20	31	1.14		0.30	17.2	9	8	12	11	W	Geo. Nicholl	
Palmetto—1	Esmeralda	6,500	9	31.8	—3.7	65	5	1	23	48	0.80	—1.71	0.40	7.0	3	23	5	3	N	Wm. Oothout	
Panaca	Lincoln			39.3		72	8	9	14	50	1.05		1.00	8.5	2	17	5	9	SW	A. H. Wedge	
St. Thomas—1	Lincoln	1,600		48.8		79	4	19	28	52	T		T	0	0	3	27	1	S	John A. Abbott	
San Antonio—1	Nye	4,500		34.8		67	30	5	13	46	T		T	T	0	16	1	14	NE	Mrs. Eli Baker	
Silver Peak—1	Esmeralda	4,382		41.6		76	5	13	14	44	0.73		0.26	4.0	5	14	8	9	N	Chas. G. Fogg	
Sodaville—1	Nye	4,665		38.2		69	31	8	23	45	0.21		0.11	1.5	2	14	2	15	N	T. G. Watterson	
Tybo—1	Nye	6,500	7	36.4	+0.2	60	31	18	16	32	0.47	—2.04	0.21	7.0	3	18	13	0	N	Jas. B. Gilmore	
Means or Extremes					35.0	—3.9	79	4	—10	15	58	0.63	—0.46	1.00	6.8	4	14	9	8	W	Means or Extremes

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. †Agent S. P. R. Co. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

High Winds—Austin, 12; Carson City, 7, 9, 12, 13, 14, 15, 20, 21, 24, 25; Candelaria, 12; Empire Ranch, 15, 25; Elko, 14; Fenelon, 10, 11, 12, 13, 14, 25; Las Vegas, 26; Midas, 11, 12, 19, 20, 21, 23, 24; Reno, 10, 12, 17; Silver Peak, 10, 12; Toano, 11, 12, 13, 21, 22, 26, 28.

Lunar Halo—Carson City, 2, 5; Candelaria, 2; Fenelon, 2, 3, 6; Midas, 2; Toano, 1, 2, 3, 4, 6; Winnemucca, 2.

Solar Halo—Carson City, 2, 5, 6; Fenelon, 3; Toano, 3.

Lunar Corona—Silver Peak, 10; Toano, 1, 4.

LATE FEBRUARY REPORTS.

Bunkerville—Total precipitation, 0.02 of an inch.

Empire Ranch—Mean temperature, 33.2; maximum, 54, on 16th; minimum, 5, on 9th; total precipitation, 0.12 of an inch.

CLIMATE AND CROPS: NEVADA SECTION.

MARCH, 1898.

Stations.	Day of Month.																															Totals.		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
NORTHERN SECTION.																																		
Austin										.03		.28	.53		.20				.03	.09	.22	.06					.36						1.43	
Battle Mountain												.09							.09	.18	.18						.09						0.55	
Beowawe									T	T		T	.04	T	.04			T	.26	T	.37				T	.30			.04				0.53	
Blaine													T								.38								.09				0.97	
Carlin																																	0.17	
Carson City								.14					.04	.09	.28	.06					.15				.24								1.00	
Carson City (W. B.)									.11			.04	.01	.39	.06	T					.11	.01		.26	T								0.99	
Clover Valley													.08		.17			T	.05	T	.16			T		.09		.03					0.58	
Crane's Ranch													.04		.19				.28	.04	T			T		.09							0.55	
Elko																																		
Ely								.10				.40		T	.19	.19	.28	T	T					.20	.65								2.01	
Fenelon								.09				.04	.09	.37				.28		.28	.04			.18	.04								1.41	
Golconda												.18								.09	.09		T										0.27	
Halleck												.04			.04			T		T	.09			.18	T		T						0.35	
Hamilton																																		
Hot Springs													T								T												T	
Humboldt												.09			.14						T												0.23	
Lewers' Ranch									.11			.07	.07	.07	.56	.33				.13				.37									1.57	
Lovelock												T					.15			.02				.02	.04								0.15	
McGill												.05	.04		.12		.15							.15	.13								0.64	
Mill City												.09			.09																		0.27	
Martin's Ranch										.12		.05			.15	.08								.12		.09							0.56	
Monitor Mill								.25			.14				T	T	T	.35	.04	.07			.46			.03							0.30	
Oseola								.09	.09			.37			.09	.04	.09	.28		.04													1.37	
Palisade													.09		.37																		0.46	
Reno									.04		.10		T	.15	.02	.02				.15				.17									0.65	
Ruby Valley							T			.01	.02	.06			.02	.33	.04		T	.10	T					.03			.23				0.88	
St. Clair															.02					.17													0.25	
Tecoma													.04	.09	.18				T	T	.09												0.22	
Toano				T			T	T	T		.09		.09	.09	T	.18	.09	T	T					.18				T					0.72	
Tuscarora															.50			.11	.06														0.84	
Verdi						T						.18			.18	.04				.02			.63						.14				0.24	
Wadsworth														.18	.10		T	T		.42													0.60	
Wells										.20			.20	.20	.11	.01		T	.01	.18	.08				.30		.06						1.02	
Winnemucca																								.12	.02								0.75	
SOUTHERN SECTION.																																		
Bunkerville								T			T		T		T					T				T	T		T						T	
Candelaria																	.11			T					.06								0.17	
Darrough Ranch													.29		.09		.20	.04		.06				.15									0.83	
Empire Ranch								T												.24				.02									0.38	
Hawthorne								.04					.08																				0.21	
Keyser's Springs									.08								T	.09		.04													T	
Las Vegas									T			.15	.30	.03			.10		.22	.05				.20	.08								1.14	
Midas																		T															0.80	
Palmetto								.10					T				.30	T		T				.40		T							1.05	
Panaca									1.00							.05																		
St. Thomas										T									T														T	
San Antonio									.26						T			.21	.18	.04			T				.04						T	
Silver Peak								T												.10													0.73	
Sodaville																					T												0.21	
Tybo									.06							.20	.21																0.47	

TOTAL PRECIPITATION FOR APRIL, 1880.



CARSON CITY, NEVADA:

STATE PRINTING OFFICE, -  - J. G. MCCARTHY, SUPT.

1898

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR MARCH, 1898.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU.

BY

R. F. YOUNG,

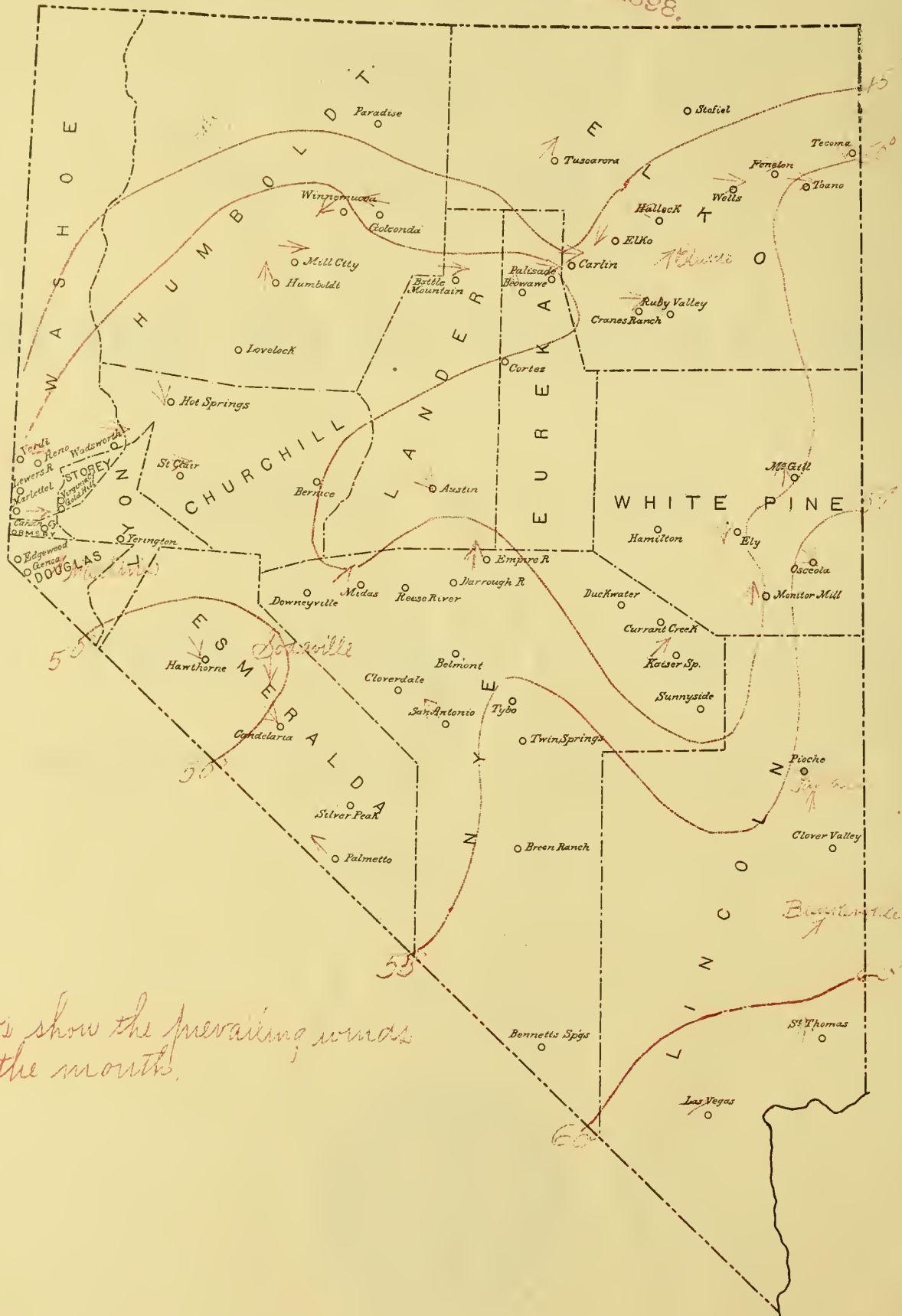
OBSERVER AND SECTION DIRECTOR,

CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR MARCH, 1898

APRIL 1898.



rows show the prevailing winds
for the month.

U. S. DEPARTMENT OF AGRICULTURE,
CLIMATE AND CROP SERVICE
 OF THE
WEATHER BUREAU.

IN COOPERATION WITH THE NEVADA STATE WEATHER SERVICE.

Central Office, { WILLIS L. MOORE,
 WASHINGTON, D. C. } CHIEF.

NEVADA SECTION,
R. F. YOUNG, Section Director.
 CARSON CITY, NEV.

VOL. XII. CARSON CITY, NEVADA. No. 4.

ATMOSPHERIC PRESSURE.

An area of low pressure was central in the southern portion of the State on the 2d, which caused a few local showers. This was followed by a period of stagnant atmospheric conditions until the 19th, when a moderate storm center moved up from the south, from which light rains resulted. The most important disturbance of the month appeared in Southern Arizona on the 27th, and, moving northward, caused rains in all sections. This low pressure still remained over the State at the close of the month.

The record for the month at Carson City and Winnemucca was as follows:

Carson City—Mean, 30.00 inches; highest, 30.38, on 12th; lowest, 29.58, on 29th.

Winnemucca—Mean, 30.02 inches; highest, 30.41, on 12th; lowest, 29.58, on 29th.

TEMPERATURE.

Mild temperature prevailed throughout the entire month. From the 1st to the 8th it was somewhat below the normal, but the remainder of the month was considerably above. On the whole it was one of the warmest Aprils on record, those of 1881, 1888 and 1889 being slightly warmer. The monthly average for the State was 51.1 degrees, or about 3.0 above the normal. The highest mean was 63.6, at St. Thomas, and lowest 41.7, at Tuscarora. The maximum was 103, at St. Thomas on the 26th, and minimum 12, at Elko on 1st, and Tuscarora on 2d. The greatest daily range was 59, at St. Thomas on 26th; greatest monthly range, 78, at St. Thomas.

PRECIPITATION.

There was no precipitation worth noting until the 20th. Light showers fell over the greater portion of the State on the 20th and 21st, and unusually heavy rain fell in portions of Elko county. The storm of the 29th and 30th was more general, resulting in good rains in nearly all sections except Humboldt county. By reference to chart on page 7, it will be seen that the rainfall was heaviest in central and western Elko county, while limited areas in several other counties received over an inch. The heaviest rainfall for April during the past 19 years at Carson was 5.02 in 1880 and 3.14 in 1885, and at Winnemucca 1.94 inches in 1887 and 1.95 in 1896.

The average for the State was .71 of an inch, which is about one-fourth of an inch in excess of the normal. The greatest monthly amount was 2.50 inches, at Tecoma. None fell at Golconda, Humboldt, Mill City and Las Vegas. The greatest amount in twenty-four hours was 2.00, at Tecoma on 20th; greatest snowfall, 5.5, at Lewers' Ranch. Number of days with .01 or more, 2.

WIND AND WEATHER.

The prevailing winds were from the west. Total movement of wind at Carson Observatory was 4,401 miles; extreme velocity, 44 miles, southwest, on the 5th. At Weather Bureau Station: Total movement, 5,871 miles; maximum, 49 miles, west, on the 20th. At Winnemucca: Total movement, 7,929 miles; maximum, 48 miles, southwest, on the 20th. Average number of clear days, 17; partly cloudy, 7; cloudy, 6.

OBSERVERS' REMARKS.

Candelaria—Loud thunder with lightning in south on 21st. Trees in full leaf and garden vegetables up.
 FRED CONKRELL.

Elko—Good rains latter half of month, greatly helping the ranges and meadows.
 C. H. SPENCER.

Keyser's Springs—Very warm weather for April. Fruit trees nearly through blooming. Hurricane on 1st.
 EUGENE LOCKE.

Martin's Ranch—Crops looking fine; grain is well advanced; alfalfa is very promising.
 J. H. MARTIN.

Midas—A very unusual April; only two storms. Storm continues at close of month—wet snow, rain and sleet. Farmers jubilant, as outlook for crops was sealy.
 GEO. SCHOLL.

Monitor Mill—Thunder and lightning on 19th, 20th and 25th. Surrounding mountains white with fresh snow on 21st. Morning of 30th ground hereabouts covered with snow.
 JAMES B. ORR.

Oseola—Very fine month; fruit trees all in bloom April 20th. Very little wind. Some snow on mountains.
 JAS. H. MARRIOTT.

Reno—Hazy in east forenoon of 28th. Snow in mountains to the west on 30th.
 J. J. SELLIVAN.

Sodaville—Heavy thunderstorm on 20th. Telegraph wire at Luning, Nevada, melted by lightning.
 T. G. WATTERSON.

St. Thomas—Considerable thunder and lightning, with light showers of rain, on 16th.
 GEO. B. WHITNEY.

Toano—Grass doing fine; gardens all planted by 28th. Snow and rain on 30th.
 W. S. SPENCER.

Wadsworth—Heavy frosts on 3d of April. No particular injury to the crops.
 G. A. MACPHERSON.

Wells—The past month has been favorable for agriculture and stock interests. Crops are coming up finely, and grass is doing well. Storm of 30th insures growth of grass for the next two weeks, but will prove bad for young lambs.
 A. FISHER.

WEATHER AND CROP REVIEW.

Week ending April 11th—April opened with cool and dry weather, which continued through the second week. Wheat, barley and oats seeding was in progress in all sections. Range grass backward in most sections, and stock still being fed in a few localities. Alfalfa has made little growth, but is starting nicely the last few days. Apricots and plums budding in Churchill and Washoe counties. Cattle and sheep generally in good condition. Shearing in progress in northern counties.

Week ending April 18th—Considerably warmer than the preceding week. Crops made rapid growth where there was sufficient moisture. Grain sowing pushed rapidly. Range feed becoming plentiful in Elko and Churchill counties. Stock in most sections improving, though in some sections barely holding their own. Not as much grain sown as is usual in Eureka and Lyon counties because of short water supply. Pear, peach, apricot and plum trees in bloom in Churchill, Lyon and Washoe counties. First crop of alfalfa ready to cut in southern Lincoln county. Garden truck and potatoes being planted in middle counties.

Week ending April 25th—Prospects for crops much improved by the rains which have fallen over the greater portion of the State. The moisture and warm days caused rapid growth of alfalfa and grain, and the ranges in all sections are already much improved by the rains. Fruit injured slightly by frost in Esmeralda and Lyon counties. Fruit trees generally in full bloom in middle counties, and beginning to bloom in Humboldt and White Pine. Poor prospects for hay in portions of Humboldt, Eureka and Nye counties. There is a fine prospect for fruit of all kinds in Churchill, Lyon, Ormsby and Washoe counties. Stock beginning to improve more rapidly in most sections.

NOTES AND PERSONALS.

Mr. John A. Abbott, who has for several years past rendered valuable services as voluntary observer and crop correspondent at St. Thomas, has removed from Lincoln county. He is succeeded by Hon. Geo. Whitney.

Mr. E. H. Geiselman, who for several years has been observer at Tuscarora, has joined the volunteer cavalry troop furnished by Nevada. This service thereby loses a valued observer, but we have no doubt that Uncle Sam will gain a good soldier.

Stations.		Day of Month.												Months.																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
NORTHERN SECTION.																																	
Austin	Max.	57	53	38	50	53	56	53	59	65	64	63	65	71	70	68	64	59	63	66	63	58	40	63	70	77	74	67	64	59	55	---	61.5
	Min.	35	31	18	25	35	36	31	39	29	41	29	35	41	45	42	44	39	35	42	41	33	40	39	44	51	46	35	43	37	33	---	37.2
Blaine	Max.	24	32	19	19	21	39	31	60	34	64	55	62	76	76	73	69	62	67	72	68	65	65	32	82	45	26	62	31	34	---	64.0	
	Min.	24	22	14	19	21	39	27	30	27	34	28	25	27	33	33	42	33	33	40	35	40	35	32	32	35	45	32	26	31	---	31.3	
Carson City	Max.	61	46	53	63	64	60	60	70	65	65	63	77	77	74	71	69	72	73	73	65	63	70	76	82	80	77	69	61	54	---	67.5	
	Min.	26	32	21	20	24	31	37	26	43	30	27	33	32	32	32	37	37	33	35	35	43	43	68	80	42	55	34	39	37	---	33.5	
Carson City (W. B.)	Max.	60	47	52	63	64	51	58	68	73	62	63	75	75	73	69	68	70	71	71	63	68	74	80	79	74	73	68	62	55	---	66.3	
	Min.	30	30	23	26	28	37	37	28	32	43	33	29	35	35	36	36	36	37	39	39	45	40	68	78	47	50	46	44	36	---	36.0	
Elko	Max.	47	53	46	48	46	49	48	52	50	58	62	60	58	69	66	61	72	61	60	54	56	64	64	39	82	41	40	32	36	39	---	61.8
	Min.	12	14	16	13	15	22	27	32	37	34	34	32	34	34	37	36	37	36	28	37	39	42	41	39	42	41	40	32	36	---	30.6	
Ely	Max.	35	51	43	55	58	55	60	65	67	65	63	66	72	74	72	70	68	69	70	61	64	65	67	74	77	72	69	64	55	---	64.4	
	Min.	30	18	20	23	30	24	28	29	32	30	26	27	30	36	30	31	30	38	36	35	34	30	34	30	40	35	30	36	35	---	30.7	
Hamilton	Max.	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Lewers' Ranch	Max.	60	49	50	60	65	53	56	67	72	65	64	74	77	77	70	68	70	72	65	63	72	69	73	80	81	73	66	62	55	---	66.7	
	Min.	35	33	20	34	29	34	30	38	37	38	36	38	38	42	41	38	35	36	41	36	36	42	39	41	46	54	35	39	36	35	---	36.2
Martin's Ranch	Max.	65	51	50	59	66	61	65	69	72	68	71	74	78	80	73	71	71	73	74	69	68	70	74	80	82	78	74	78	74	68	---	70.2
	Min.	28	31	21	27	34	35	26	34	34	29	28	32	32	34	34	35	35	38	32	35	38	35	38	43	54	34	38	32	36	---	33.1	
Monitor Mill	Max.	55	50	43	48	56	55	56	59	66	66	57	63	72	74	74	71	61	68	69	68	57	63	65	71	78	79	64	66	64	54	---	63.1
	Min.	32	17	18	22	31	23	25	35	29	37	33	36	38	39	34	28	34	36	33	36	32	32	32	35	42	38	32	32	33	32	---	30.2
McGill	Max.	60	54	45	52	61	59	58	64	70	70	57	68	73	76	77	68	64	68	71	68	63	64	71	74	78	79	65	68	66	58	---	65.6
	Min.	35	20	22	24	25	25	25	33	30	20	25	25	33	33	33	29	28	30	40	40	30	38	34	40	30	37	30	35	36	35	---	31.1
Osceola	Max.	42	49	64	51	63	60	72	71	55	60	75	70	78	70	75	74	70	75	49	56	66	70	71	65	61	62	78	60	64	55	---	63.9
	Min.	29	29	32	40	38	48	46	48	42	42	48	48	60	52	48	49	44	38	40	38	40	48	51	50	50	54	60	52	46	42	---	45.5
Reno	Max.	62	48	57	61	66	48	57	69	73	63	65	74	79	75	70	74	75	70	72	65	66	69	73	77	82	75	74	69	68	54	---	67.7
	Min.	22	28	23	24	28	30	27	32	36	22	35	30	35	35	36	36	32	38	40	44	33	35	38	40	38	50	36	40	38	44	---	34.0
St. Clair	Max.	31	34	22	26	34	25	24	35	33	34	35	37	39	42	44	44	42	43	45	43	44	41	41	73	81	85	50	40	48	43	---	37.8
	Min.	31	34	22	26	34	25	24	35	33	34	35	37	39	42	44	44	42	43	45	43	44	41	41	73	81	85	50	40	48	43	---	37.8
Tuscarora	Max.	49	34	37	39	60	49	45	48	50	58	55	63	68	72	69	65	61	55	68	53	49	61	64	60	65	70	76	61	58	57	---	57.3
	Min.	18	12	17	18	30	25	27	28	25	28	25	28	29	30	28	23	20	23	25	25	30	25	25	26	26	28	29	36	35	26	---	26.0
Wells	Max.	62	50	42	52	60	55	56	64	70	70	62	71	76	76	77	71	62	71	72	68	57	62	70	72	80	74	68	70	72	60	---	65.6
	Min.	30	20	26	26	30	22	23	36	30	22	28	30	32	32	34	29	29	38	38	36	37	32	33	38	47	31	32	35	34	---	30.2	
Winnemucca	Max.	64	48	55	60	68	54	56	66	74	62	63	75	79	74	74	67	65	66	74	65	65	66	70	78	83	73	66	67	61	50	---	66.3
	Min.	26	40	21	21	30	42	32	26	35	45	23	32	34	37	34	40	38	35	35	42	40	50	39	41	46	47	34	47	36	39	---	36.0
SOUTHERN SECTION.																																	
Candelaria	Max.	65	46	44	65	66	63	68	70	75	65	63	71	78	78	76	71	70	74	77	70	69	70	72	81	85	83	75	77	67	59	---	69.8
	Min.	34	34	25	26	35	35	30	35	43	45	34	39	43	43	46	45	41	43	46	44	32	40	44	58	52	52	43	42	40	---	40.1	
Empire Ranch	Max.	36	57	51	47	52	61	64	60	67	68	60	61	68	76	76	72	71	70	71	63	65	60	63	40	55	53	39	48	40	43	---	39.5
	Min.	36	57	51	47	52	61	64	60	67	68	60	61	68	76	76	72	71	70	71	63	65	60	63	40	55	53	39	48	40	43	---	39.5
Hawthorne	Max.	35	41	50	59	72	61	65	69	77	67	64	76	83	81	76	72	70	73	73	68	71	72	80	88	88	72	70	67	59	---	70.6	
	Min.	35	41	50	59	72	61	65	69	77	67	64	76	83	81	76	72	70	73	73	68	71	72	80	88	88	72	70	67	59	---	70.6	
Las Vegas	Max.	75	55	55	65	65	69	69	64	75	75	77	73	67	72	77	73	75	71	82	73	71	73	80	74	76	90	81	80	70	63	---	42.9
	Min.	34	47	47	46	45	45	39	43	44	44	45	49	49	49	55	49	51	60	59	58	58	58	58	58	53	53	67	57	54	44	---	72.2
Midas	Max.	34	49	49	52	57	56	55	61	66	60	57	56	70	70	70	65	62	67	70	61	63	61	67	74	71	74	76	59	64	43	---	50.8
	Min.	29	18	19	24	29	32	36	39	34	37	44	48	48	43	38	36	36	44	40	40	40	46	47	46	48	43	47	64	43	---	63.1	
Palmetto	Max.	58	38	50	59	60	60	62	70	70	68	63	71	75	75	72	72	72	72	70	65	60	74	74	79	82	83	75	63	67	45	---	67.3
	Min.	25	32	21	15	23	38	30	35	37	34	31	27	34	33	35	38	36	33	26	33	34	35	35	38	38	43	35	35	36	---	32.0	
Panaca	Max.	76	67	61	73	67	62	76	82	84	84	74	83	88	85	78	84	88	84	88	84	78	83	88	89	90	94	90	96	34	70	---	80.1
	Min.	20	32	26	21	22	20	29	25	20	32	45	33	28	38	43	36	36	43	36	43	38	38	82	88	89	94	90	96	34	70	---	33.5
St. Thomas	Max.	78	76	77	77	81	80	89	87	90	75	80	75	95	87	86	88	91	88	90	88	86	88	88	95	95	98	103	98	96	85	---	87.0
	Min.	27	26	25	26	26	29	30	30	40	38	37	38	42	40	38	38	38	38	38	38	38	38	38	38	38	38	38	38	37	---	40.1	
San Antonio	Max.	67	62	64	60	62	62	62	64	65	69	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Min.	25	30	27	26	30	30	43	20	22	35	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Silver Peak	Max.	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---						

CLIMATOLOGICAL DATA FOR APRIL, 1898.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).						Precipitation (inches).						Sky.				Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (inches).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.	Prevailing direction of wind.		
NORTHERN SECTION.																					
Austin—1	Lander	6,594	11	49.1	+5.4	77	25	18	3	34	1.16	-0.12	0.45	2.0	5	10	12	8	SW	M. D. Murphy	
Battle Mountain	Lander	1,511	28	52.1	+2.3	86	25	30	3	45	0.26	-0.55	0.18	0	2	17	0	13	W	†F. A. Limbaugh	
Beowawe	Eureka	4,685	28	53.0	+1.1	87	25	30	3	41	0.60	-0.01	0.10	0	2	2	0	28	S	†E. F. Wolver	
Blaine	Elko			47.6	—	82	25	19	3	49	2.18	—	0.70	5.0	4	12	10	8	SW	†E. J. Jones	
Carlin	Elko	4,897	28	44.6	-1.5	77	21	28	2	44	0.75	+0.18	0.75	0	1	23	3	4	W	J. A. Ferraro	
Carson City—1	Ormsby	4,660	19	50.6	+2.6	82	24	20	4	50	0.53	-0.38	0.22	2.2	4	16	13	1	SW	C. W. Friend	
Carson City (W. B.)—1	Ormsby	4,720	11	51.2	+2.4	80	24	23	4	46	0.43	-0.44	0.18	2.1	1	14	11	2	W	U. S. Weather Bureau	
Clover Valley	Elko	6,000																		W. M. Angel	
Crane's Ranch	Elko	5,350	11								0.66	-0.51	0.30	0	3	23	6	1	W	W. T. Crane	
Elko—1	Elko	5,063	28	46.2	+0.8	82	25	12	1	48	1.40	+0.96	0.60	0	3	20	10	0	NE	C. H. Sproule	
Ely—1	White Pine	6,000	11	47.6	+4.6	77	25	18	12	42	1.15	-0.02	0.75	0	3	15	9	6	S	M. B. Garaghan	
Fenelon	Elko	6,128	11	45.9	+1.6	80	25	28	3	37	1.73	+1.11	1.00	3.5	5	10	15	5	W	†F. H. Macdonell	
Golconda	Humboldt	1,392	20	48.4	-2.8	74	27	30	10	30	0	-0.60	0	0	0	14	10	6	E	†J. A. Langwith	
Halleck	Elko	5,229	26	47.2	+0.8	85	24	27	3	38	0.30	-0.31	0.30	0	1	9	8	13	E	†J. E. Murray	
Hamilton—1	White Pine	7,977																		Mrs. C. Timson	
Hot Springs	Churchill	4,072	11			90	25	37	3	32	1	-0.17	T	0	0	18	9	3	NW	†H. A. Powers	
Humboldt	Humboldt	4,236	27	54.2	+3.9	81	24	32	4	34	0	-0.67	0	0	0	10	14	6	S	†J. J. Cullen	
Lewers' Ranch—1	Washoe	5,200	11	51.4	+4.5	81	25	20	3	39	1.18	-0.01	0.76	5.5	4	19	10	1	SW	E. Lewers	
Lovelock	Humboldt	3,977	7																	†L. M. Donelin	
Martin's Ranch—1	Douglas	4,830		51.6		82	25	21	3	46	0.44		0.40	6.2	2	27	2	1	SW	J. H. Martin	
McGill—1	White Pine	5,200		48.4		79	26	20	2	48	0.70		0.47	0	3	16	13	1	S	Jerry Kent	
Mill City	Humboldt	4,225	10	54.4	+5.1	90	25	30	3	35	0	-0.54	0	0	0	24	2	4	W	†H. J. Humphrey	
Monitor Mill—1	White Pine	6,400		46.6		79	26	17	2	47	0.49		0.34	T	2	8	9	13	S	Jas. B. Orr	
Osceola—1	White Pine	6,500		54.7		78	27	29	1	33	0.80		0.48	0	3	15	10	5	NW	Jas. H. Marriott	
Palisade	Eureka	4,821	17	52.6	+4.7	80	25	30	3	34	0.75	+0.07	0.75	0	2	28	0	2	W	†W. C. Owen	
Reno—1	Washoe	4,484	28	50.8	+4.0	82	25	22	1	49	0.41	0	0.25	1.5	3	21	7	2	W	J. J. Sullivan	
Ruby Valley	Elko	6,000	4								0.76	-0.11	0.38	0.3	4	22	6	2	S	Miss Jennie Williams	
St. Clair—1	Churchill	4,000	7	54.1	+9.8	85	26	22	3	44	0.08	-0.52	0.08	0	1	18	9	3	W	C. Allen	
Tecoma	Elko	4,812	21	47.6	-1.2	71	23	30	1	29	2.50	+1.88	2.00	0	2	23	4	3	N	†W. T. Onyon	
Toano	Elko	5,975	29	49.5	+4.9	80	15	30	2	32	1.50	+0.71	0.85	T	3	16	2	12	W	†W. S. Spencer	
Tuscarora—1	Elko	6,400	8	41.7	+0.7	76	27	12	2	47	0.82	-0.02	0.70	T	2	16	8	6	SW	E. H. Geiselman	
Verdi	Washoe	4,895	9	44.8	+1.3	95	26	18	4	53	0.10	-0.55	0.10	0	1	27	1	2	SW	†E. L. King	
Wadsworth	Washoe	4,077	27	53.2	+0.5	82	28	26	3	40	0.30	-0.05	0.15	0	2	28	2	0	W	†G. A. Macpherson	
Wells—1	Elko	5,628	28	47.9	-1.6	80	25	20	2	49	0.78	+0.15	0.42	0	3	13	3	14	W	A. Fisher	
Winnemucca—1	Humboldt	4,432	20	51.2	+4.0	83	25	21	4	45	0.32	-0.62	0.31	0	3	12	9	9	NE	C. A. Rogers	
SOUTHERN SECTION.																					
Bunkerville	Lincoln										0.30		0.20	0	2	16	6	8	SW	Miss Emily J. Lee	
Candelaria—1	Esmeralda	5,783	9	55.1	+5.5	85	25	25	3	39	0.62	+0.13	0.55	0	2	23	1	6	NW	Fred Corkhill	
Darrough Ranch	Nye	4,500																		Mrs. J. T. Darrough	
Empire Ranch—1	Nye	6,990	6	52.2	+6.1	80	26	21	3	37	0.79	-0.05	0.70	4.5	2	15	4	11	S	Miss Bessie Potts	
Hawthorne—1	Esmeralda	4,569	11	56.3	+0.8	88	25	27	4	40	T	-0.20	T	0	0	13	7	10	NW	C. P. Mengel	
Keyser's Springs	Nye	5,400		46.3		88	26	24	5	47	0.25		0.25	0	1	19	10	1	SW	Eugene Lock	
Las Vegas—1	Lincoln	2,074		61.5		90	26	34	1	41	0		0	0	0	23	5	2	W	E. B. Kiel	
Midas—1	Nye	7,200		50.4		76	27	16	2	34	1.38		0.90	2.0	2	14	10	6	SW	Geo. Nicholl	
Palmetto—1	Esmeralda	6,500	9	49.6	+6.1	83	26	15	4	48	1.85	+0.99	1.55	3.0	2	25	1	4	SE	Wm. Oothout	
Panaca	Lincoln			56.8		96	28	20	1	58	1.25		0.50	0	3	13	11	6	S	A. H. Wedge	
St. Thomas—1	Lincoln	1,600		63.6		103	26	25	3	59	0.06		0.06	0	1	8	13	9	S	Geo. B. Whitney	
San Antonio—1	Nye	4,500		52.2		85	27	20	8	44	0.85		0.34	0	4	9	2	16	SE	Mrs. Eli Baker	
Silver Peak—1	Esmeralda	4,382																		Chas. G. Fogg	
Sodaville—1	Nye	4,665		56.5		90	25	19	4	51	0.58		0.40	0	2	12	10	8	N	T. G. Watterson	
Tybo—1	Nye	6,500	7	54.8	+8.4	82	25	28	1	38	0.90	+0.53	0.80	0	2	20	9	1	S	Jas. B. Gilmore	
Means or Extremes				51.1	+3.0	103	26	12	1	59	0.71	+0.26	2.00	0.8	2	17	7	6	W	Means or Extremes	

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. †Agent S. P. R. Co. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

High Winds—Austin, 26; Beowawe, 6, 28; Carson City, 1, 5, 6, 7, 9, 10, 15, 16, 19, 20, 21, 27, 28, 29, 30; Elko, 6, 16; Halleck, 5, 6, 7, 14; Las Vegas, 2; Midas, 5, 6, 9, 10, 11, 28; Palmetto, 11, 28; Reno, 28; Tuscarora, 6, 7, 16, 26, 29; Tybo, 6, 7.

Solar Halo—Carson City, 1, 5, 10, 12, 13, 17, 19, 21, 25, 28; Keyser's Springs, 15, 26; Panaca, 19.

Light Frosts (after 15th)—Candelaria, 21; Carson City, 16, 18, 19, 27; Ely, 17, 22, 27; Midas, 21, 30; Wells, 16, 24, 26, 28.

Killing Frosts (after 15th)—Carson City, 21; Midas, 20.

Thunderstorms—Candelaria, 21; Midas, 20; Sodaville, 20; Tybo, 30; Winnemucca, 20; St. Thomas, 16.

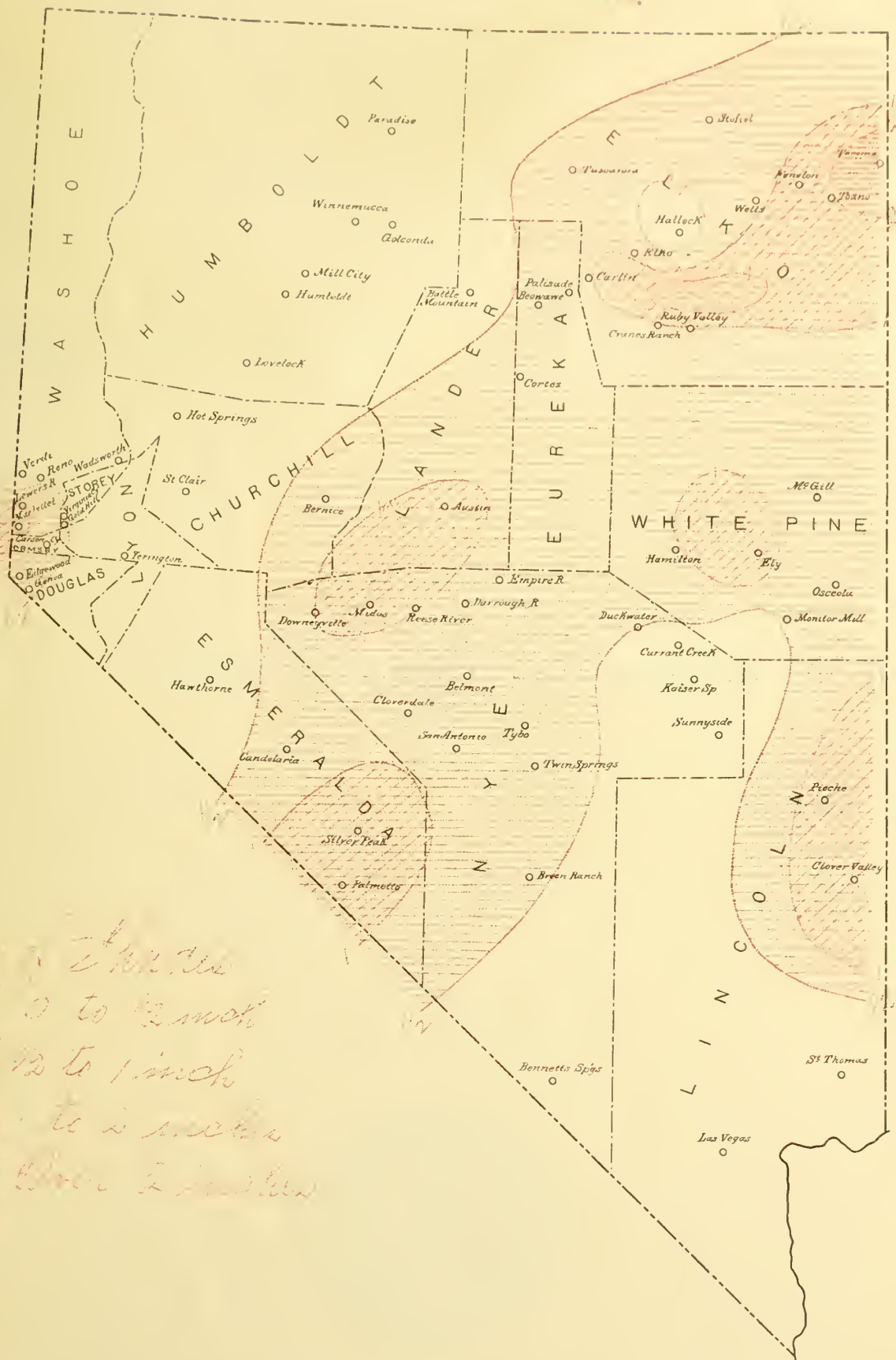
Hail—Candelaria, 20; Midas, 30; Tuscarora, 30; Tybo, 30.

DAILY PRECIPITATION FOR APRIL, 1898.

Stations.	Day of Month.																															Totals.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
NORTHERN SECTION.																																	
Austin			.14	.09																.04	.44									.45		1.16	
Battle Mountain																				.18										.08		.026	
Beowawe																				.20										.40		.060	
Blaine			.48																	.50	.70									.50		2.18	
Carlin																				.75												.075	
Carson City	.19					.03														T								.09	.22			.53	
Carson City (W. B.)	.15					.03														T								.07	.18			.643	
Clover Valley																																	
Crane's Ranch	T																				.18	.30							.18			.066	
Elko																				.50	.60								.30			1.40	
Ely																																	
Fenelon	.08															.15		T	.10	.75									.30	T		1.15	
Golconda																			.20	1.00										.30		1.73	
Halleck																						.30										0	
Hamilton																																	0.30
Hot Springs																																	
Humboldt																																	
Lewers' Ranch	.25					.15													T										.02	.76		1.18	
Lovelock																																	
McGill																			.47										.11	.12			.070
Mill City																																	0
Martin's Ranch		.40																															.44
Monitor Mill	T															T					.15								.04	.34		.046	
Osceola																						.18	.14									.080	
Palisade																				.75												.075	
Reno	.12					.04																											.041
Ruby Valley	.02																		.01	.38	T									.35	.076		
St. Clair																					.08											.008	
Tecoma																			T	.200										.50	2.50		
Toano																				.85	.15											1.50	
Tuscarora					T											.12					.70												.082
Verdi																																	.010
Wadsworth																				.15												.015	
Wells	.06																			.42												.078	
Winnemucca	T				T															.30	.01											.032	
SOUTHERN SECTION.																																	
Bunkerville															.20	.10																	.030
Candelaria	T																			.07										.55		.062	
Darrough Ranch																																	
Empire Ranch	T																		T	.09										.70		.079	
Hawthorne																																	T
Keyser's Springs																																	
Las Vegas																			T	T										.25		.025	
Midas																																	0
Palmetto	.30																		T	.48										.90	1.38		
Panaca															.25	.59														T	1.55	1.85	
St. Thomas																																	1.25
San Antonio															.06																		.006
Silver Peak																		.10	.31											.09	.32	.085	
Sodaville	T																			.40										.18		.058	
Tybo																		T			.10										.80		.090

TOTAL PRECIPITATION FOR MARCH, 1898

APR 1, 1898.



12 to 1 inch
 1 to 2 inches
 2 to 3 inches
 3 to 4 inches

CARSON CITY, NEVADA:
STATE PRINTING OFFICE, -  - J. G. MCCARTHY, SUPT.
1898

U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR MAY, 1898.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU.

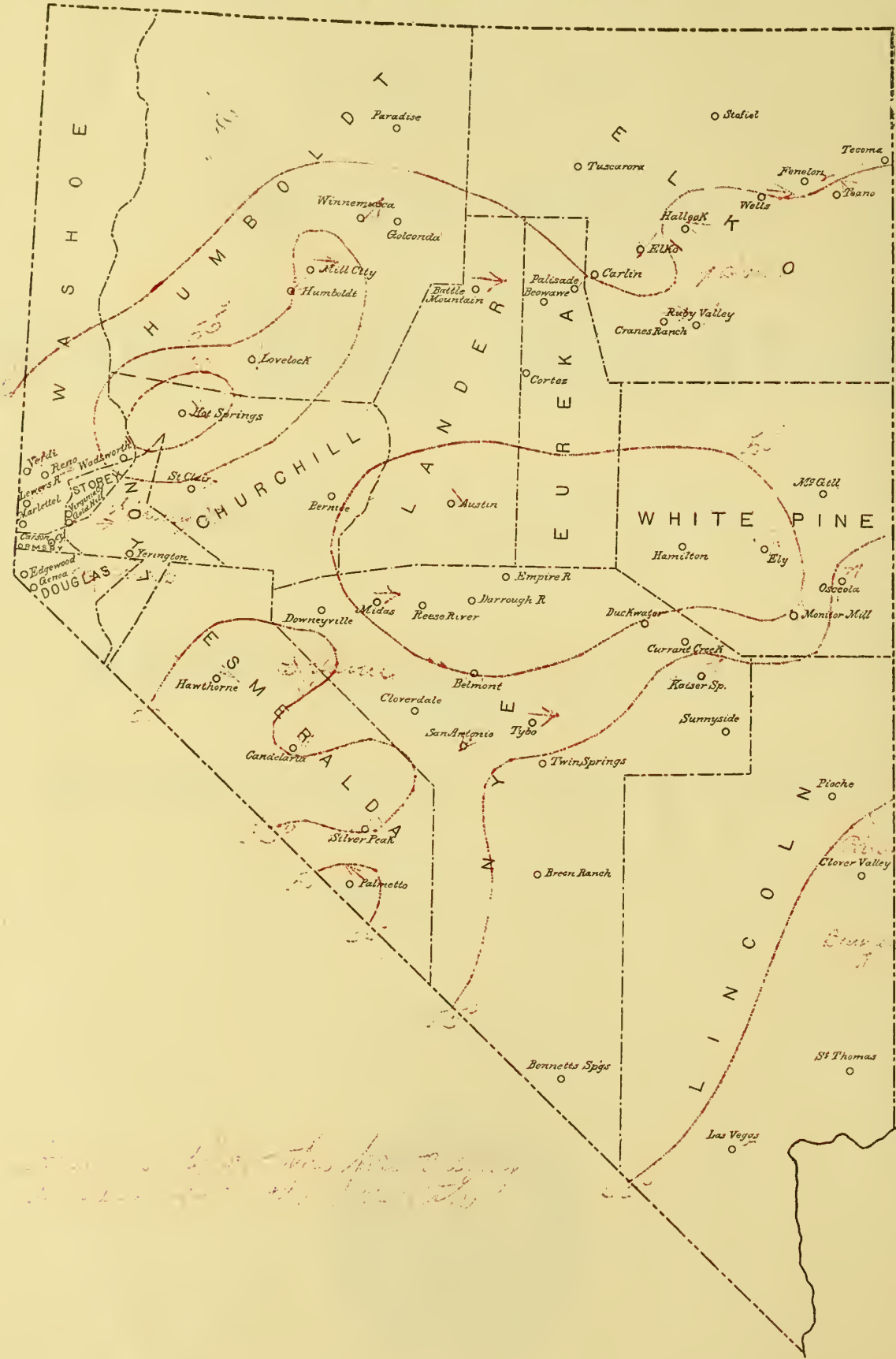
BY

R. F. YOUNG,

OBSERVER AND SECTION DIRECTOR,
CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR MAY, 1898.



U. S. DEPARTMENT OF AGRICULTURE,
CLIMATE AND CROP SERVICE
 OF THE
WEATHER BUREAU.

IN COOPERATION WITH THE NEVADA STATE WEATHER SERVICE.

Central Office,
 WASHINGTON, D. C.

{ WILLIAM L. MOORE,
 CHIEF.

NEVADA SECTION,
R. F. YOUNG, Section Director.
CARSON CITY, NEV.

VOL. XII.

CARSON CITY, NEVADA

No. 5.

ATMOSPHERIC PRESSURE.

An area of low pressure was central in the southern part of the State on the 1st, causing more or less stormy conditions until the 6th. The principal atmospheric disturbance for the month occurred from the 11th to the 17th. During this period Nevada was located in a trough-like depression which extended from Arizona to the northern limits of the country, apparently formed by the union of two areas of low pressure, one moving from the Washington coast southward and the other from Arizona northward. Rain and unusually cloudy weather was general over the State while these conditions prevailed. Conditions similar to these prevailed again on the 27th, but of shorter duration.

The record for the month at Carson City and Winnemucca was as follows:

Carson City—Mean, 29.90 inches; highest, 30.10, on 24th; lowest, 29.60, on 15th.

Winnemucca—Mean, 29.90 inches; highest, 30.12, on 24th; lowest, 29.58, on 15th.

TEMPERATURE.

Unusually cool weather prevailed throughout May, with the exception of the period from the 8th to the 14th. The extremes in temperature were somewhat less marked than usual. There were no temperatures above 90 degrees except in Lincoln county, and none as low as 25 except in localities in White Pine and Elko counties.

The average was about 8 degrees below that of May, 1897, which was one of the warmest Mays on record. The average for the State was 51.8, which is about 3.5 below the normal.

The highest monthly mean was 62.3, at Las Vegas, and lowest 44.1, at Fenelon.

The highest recorded was 93, at Panaca on the 11th, and lowest 20, at Elko on the 20th.

The greatest daily range was 52, at Verdi on the 19th, and greatest monthly range 66, at Panaca.

PRECIPITATION.

The precipitation for May was greatly in excess of normal in all sections excepting a small section in the western portion of the State embracing Douglas, Lyon and Ormsby counties and the southern portion of Washoe. The average for the State was more than three times that of May, 1897, and was the greatest monthly average since February, 1897. As usual at this season of the year, the rainfall was very irregularly distributed. In several instances stations only a short distance apart show a difference of two to three inches. From 2 to 5 inches of snow fell in various sections of Elko and White Pine counties, while at Midas and Palmetto the fall was, respectively, 18 and 32 inches. The total for the month was above 4 inches at the following stations: Austin, Toano, Palmetto and Tybo.

The average for the State was 1.84 inches, which is about double the usual amount for May.

The greatest monthly amount was 4.18 inches, at Austin, and least trace, at Hot Springs.

Greatest in twenty-four hours was 1.80 inches, at Palmetto on the 1st.

Average number of days with .01 or more, 7.

WIND AND WEATHER.

The prevailing winds were from the west. There were no severe gales and very little high winds until the last decade. Total wind movement at Carson Observatory was 4,570 miles; extreme velocity 32 miles, southwest on the 23d. At Weather Bureau Station: Total movement, 6,415 miles; maximum, 13 miles, southwest, on the 22d. At Winnemucca: Total movement, 7,167 miles; maximum, 36 miles, southwest, on the 21st. Average number of clear days, 11; partly cloudy, 9; cloudy, 11.

OBSERVERS' REMARKS.

Blaine—Very heavy storm of thunder and lightning occurred here on the 15th. E. J. JONES.

Candelaria—On the 15th rain and sleet in the morning and snow in the afternoon. FRED COCKRILL.

Elko—Very wet and cold month. Few bright days. Greatest rainfall in many years. C. H. SPENCER.

Ely—About four inches of snow on the 15th and 16th, which melted on falling to the ground. M. B. GARAGHAN.

Martin's Ranch—Heavy winds and frosts have been the leading characteristics for the last ten days of the month, during which time there has been little or no advancement in vegetation. J. H. MARTIN.

McGill—Had an unusual amount of rain and high winds, especially on 21st and 22d. Very cold north wind on 21th. White sage and wild grass very high. Cattle doing unusually well. Crops are a little backward for the season. MRS. W. N. MCGILL.

Midas—Heavy thunder and lightning on 27th. The past month has been very favorable for farmers and stockmen. Feed on the range is in splendid condition, and stock of all kinds in better shape than they have been in many years at this season. Frosts have been few and light for May doing no damage. Hay will be a good crop. GEO. NICHOLS.

Palmetto—We had sleet and snow with thunder on the 15th, 16th, 17th, 18th and 23d. WM. OOTHOUT, JR.

Panaca—Light frosts on 4th and 5th, but only slight damage to crops. Crops practically all in by the 15th. Small grain and fruit in good condition. Cattle looking better than for years. A. H. WEDGE.

Silver Peak—Storm on 15th and 16th continuous for forty-eight hours; hard steady rain, heaviest known here. Heavy thunder, northwest, 17th. A remarkable month. Rains have made the desert a flower garden, and the hills look like cultivated fields. CHAS. G. FOGG.

Toano—Heavy hailstorm from 2:30 to 2:55 p.m., 16th; 1.30 inches precipitation in twenty-five minutes. Moist snow on 19th. W. S. SPENCER.

Wells—Grain and alfalfa looking well on account of late rains. Hay crop assured. A. FISHER.

WEATHER AND CROP REVIEW.

Week ending May 3d—Weather conditions continued favorable. Good rains fell in nearly all northern counties. Ranges begin to show the effect of the rains, and cattle are improving. Wheat and oats about all sown and coming up in the northern counties. Potato planting in progress in middle counties. Peaches, pears, plums and apricots setting in western section, and in bloom in northern counties.

Week ending May 10th—The past week has been too cool for rapid growth. The crops and ranges in nearly all sections have been much improved by good rains. Wheat, barley and the ranges more particularly show the effects. Rather cold for alfalfa, but no injury by frost.

Week ending May 17th—The rains during the past two weeks have made a vast change in the outlook for agricultural interests. Ranges that were bare a short time ago now furnish an abundance of pasturage, and cattle and sheep are gaining fast. The prospect for hay is much better. Wheat, oats and barley have been given a fine start by the rains.

Week ending May 24th—Cool and cloudy weather prevailed during the past week, with heavy rains in northern portion. Temperature several degrees below freezing in Elko and White Pine counties. Garden truck cut down in many localities, but otherwise no injury. Fruit is still safe except in a few localities. Alfalfa again retarded by cold. Wheat, oats and barley made good progress. Grain heading in Lincoln county. In parts of Elko the moisture is sufficient to mature early crops without irrigation.

Week ending May 31st—The weather still continues too cool for good growth except in Lincoln county. Range pasturage is better than for several years past, and cattle and sheep are in the best condition. Strawberries and cherries ripening in some of the western counties. There will be a large crop of alfalfa in Churchill county, but rather below average in portions of Douglas and Lyon.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MAY, 1898.

Stations.		Day of Month.																															Monthly means.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
NORTHERN SECTION.																																		
Austin	Max. 46	46	47	47	60	63	58	61	69	75	74	69	64	63	61	41	52	52	43	56	67	65	53	54	66	72	68	57	62	60	66	59.3		
Blaine	Min. 32	34	29	37	31	39	34	35	43	45	54	51	40	49	33	31	40	36	31	31	40	43	41	31	38	51	68	34	62	60	36	37.7		
Blaine	Max. 55	56	47	51	65	68	64	63	74	78	79	76	73	72	70	62	61	57	57	61	70	70	72	51	67	70	65	62	66	60	70	65.2		
Carson City	Min. 33	33	28	30	26	43	33	31	27	38	37	30	34	34	34	34	43	38	29	29	40	40	40	34	38	38	39	28	27	33	27	33.9		
Carson City	Max. 66	62	60	64	68	73	79	79	79	79	80	79	73	63	52	58	68	65	69	64	65	60	63	74	79	71	58	60	65	63	68	65.9		
Carson City (W. B.)	Min. 36	40	31	30	35	35	42	31	32	40	43	36	76	71	62	57	66	55	58	62	46	58	61	72	76	69	60	63	61	66	66	64.4		
Carson City (W. B.)	Max. 47	47	44	49	54	52	59	54	57	69	74	78	41	40	44	40	69	64	62	61	66	64	60	62	66	71	47	42	37	34	39	39.2		
Elko	Min. 35	39	35	33	37	37	44	35	36	44	46	41	42	37	44	37	30	30	32	31	26	29	31	32	30	31	32	36	32	30	31	34	32.4	
Ely	Max. 68	68	44	49	54	52	50	54	57	69	74	78	80	74	71	69	69	64	62	61	66	64	60	62	66	71	64	65	60	62	64	64	62.4	
Ely	Min. 32	25	24	30	35	65	66	65	68	72	75	76	72	73	68	40	30	32	35	33	44	43	39	32	33	33	43	42	38	32	32	46	34.5	
Lewers' Ranch	Min. 33	26	25	26	30	32	31	30	30	35	40	39	35	38	40	30	32	35	25	33	44	43	39	32	33	33	43	42	38	32	32	46	34.5	
Lewers' Ranch	Max. 52	61	61	63	68	67	66	71	77	78	74	71	70	65	52	39	38	37	37	36	66	66	62	78	76	76	71	52	57	64	62	66	64.9	
Martin's Ranch	Min. 34	40	32	30	39	36	36	36	36	42	44	41	40	36	41	50	41	40	42	34	52	62	34	36	50	51	62	41	65	66	64	68	37.7	
Martin's Ranch	Max. 50	60	59	65	70	66	67	76	76	79	78	74	70	68	64	68	56	60	55	62	65	62	72	78	70	62	63	65	66	64	68	66.1		
Monitor Mill	Min. 34	36	34	34	33	36	38	38	38	42	44	41	40	36	41	50	41	40	42	34	52	62	34	36	50	51	62	41	65	66	64	68	66.1	
Monitor Mill	Max. 49	52	48	42	58	66	62	62	71	78	79	77	71	70	56	31	32	33	28	34	67	70	56	61	71	75	64	63	73	66	70	62.1		
McGill	Min. 32	24	28	25	31	37	33	33	33	48	41	41	32	33	32	68	68	62	62	58	62	62	30	34	36	50	51	42	41	36	46	37	39.7	
McGill	Max. 53	53	33	33	48	65	63	70	78	88	88	88	68	42	36	39	36	36	37	60	60	62	78	70	62	63	65	66	64	68	64	68	37.7	
Oseola	Min. 35	28	33	29	38	38	38	38	38	42	44	41	40	36	41	50	41	40	42	34	52	62	34	36	50	51	62	41	65	66	70	62.1		
Oseola	Max. 55	47	41	45	62	61	73	70	70	68	78	79	65	63	63	65	58	54	59	60	67	68	73	52	69	52	77	68	48	36	39	37.6		
Reno	Min. 42	30	30	30	36	36	42	41	39	56	73	63	52	48	50	50	66	62	56	65	63	64	62	71	78	67	66	60	50	58	52	46	46.0	
Reno	Max. 51	64	61	64	65	66	74	78	80	73	80	76	69	62	50	50	66	62	56	63	63	61	62	71	78	67	66	60	50	58	52	46	46.0	
St. Clair	Min. 40	40	38	33	37	37	38	35	36	40	40	40	42	49	37	38	44	40	37	40	63	64	62	71	78	67	66	60	50	58	52	46	46.0	
St. Clair	Max. 58	58	63	60	62	70	68	68	71	78	81	80	77	77	72	51	56	66	61	58	68	74	63	63	67	76	79	61	67	69	68	67.4		
Spring Valley	Min. 35	35	28	33	38	38	40	40	40	40	40	40	42	49	37	38	44	40	37	40	63	64	62	71	78	67	66	60	50	58	52	46	46.0	
Spring Valley	Max. 54	57	61	64	68	70	72	75	78	80	79	74	67	67	64	51	55	66	62	60	63	61	62	71	78	67	66	60	50	58	52	46	46.0	
Tuscarora	Min. 36	37	38	39	40	42	43	44	45	47	48	48	44	40	36	41	50	41	40	42	34	52	62	34	36	50	51	62	41	65	66	70	62.1	
Tuscarora	Max. 55	47	41	45	62	61	73	70	70	68	78	79	65	63	63	65	58	54	59	60	67	68	73	52	69	52	77	68	48	36	39	37.6		
Wells	Min. 42	30	30	30	36	36	42	41	39	56	73	63	52	48	50	50	66	62	56	63	63	64	62	71	78	67	66	60	50	58	52	46	46.0	
Wells	Max. 51	64	61	64	65	66	74	78	80	73	80	76	69	62	50	50	66	62	56	63	63	61	62	71	78	67	66	60	50	58	52	46	46.0	
Winnemucca	Min. 40	40	38	33	37	37	38	35	36	40	40	40	42	49	37	38	44	40	37	40	63	64	62	71	78	67	66	60	50	58	52	46	46.0	
Winnemucca	Max. 58	62	56	50	66	65	67	70	78	79	78	79	50	39	43	43	47	52	52	60	69	58	40	31	36	76	75	57	62	65	62	69	69.1	
SOUTHERN SECTION.																																		
Candelaria	Max. 48	51	53	59	68	69	66	61	78	82	81	75	72	66	59	59	63	62	51	65	75	86	56	65	65	75	80	72	79	70	76	67.9		
Candelaria	Min. 33	33	35	33	35	42	41	41	46	51	52	49	48	41	38	38	30	32	37	39	46	46	46	34	36	41	49	46	42	40	41	41	40.9	
Empire Ranch	Max. 50	49	48	41	51	64	66	65	66	76	76	73	73	74	68	68	55	50	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	40.9
Empire Ranch	Min. 32	33	30	30	37	39	41	41	46	51	52	49	48	41	38	38	30	32	37	39	46	46	46	34	36	41	49	46	42	40	41	41	40.9	
Hawthorne	Max. 53	60	58	62	73	69	67	71	80	82	80	72	71	71	38	38	67	63	57	77	69	52	33	34	40	46	42	40	50	45	40	41.6		
Hawthorne	Min. 38	37	41	41	37	45	47	44	41	51	51	50	43	41	39	34	47	47	41	40	63	64	62	71	78	67	66	60	50	58	52	46	46.0	
Las Vegas	Max. 53	63	59	67	70	80	85	82	85	81	82	85	81	78	65	60	74	72	65	65	78	77	72	89	82	85	80	72	80	77	78	74.6		
Las Vegas	Min. 48	45	47	45	43	41	47	50	57	59	55	60	63	46	51	41	54	43	46	59	69	61	48	59	69	73	57	50	52	52	57	50.0		
Midas	Max. 56	47	41	50	51	67	62	65	71	75	75	72	65	64	51	41	54	35	32	42	44	30	32	38	46	39	33	34	31	36	46	36.5		
Midas	Min. 31	30	27	32	30	34	38	41	47	48	48	40	37	64	48	30	63	57	55	63	63	69	71	53	67	74	73	68	68	70	75	64.5		
Palmetto	Max. 43	51	52	58	64	66	67	69	76	77	77	73	70	64	48	30	63	57	55	63	63	69	71	53	67	74	73	68	68	70	75	64.5		
Palmetto	Min. 27	29	28	27	28	33	34	40	42	43	43	35	35	34	27	30	33	38	38	38	38	47	47	31	35	34	28	33	28	35	37	34.7		
Panaca	Max. 63	65	55	63	73	83	85	80	86	91	93	91	85	84	68	54	74	67	66	71	82	88	75	76	81	89	83	80	86	87	87	77.8		
Panaca	Min. 40	35	35	28	27	43	44	39	48	52	48	41	35	39	40	35	38	41	37	37	33	37	46	47	36	37	43	38	38	46	40	39.6		
St. Thomas	Max. 52	48	58	68	74	69	73	79	85	84	84	78	77	57	53	65	61	55	61	78	70	60	69	79	81	69	74	71	83	81	57	69.5		
San Antonio	Min. 32	28	25	32	37	38	41	39	43	44	43	40	39	42	38	38	38	38	38	48	32	32	38	48	49	33	39	35	35	38	38	37.7		
Silver Peak	Max. 58	56	60	64	72	64	72	75	75	86	85	82	72	62	52	49	61	53	49	46	39	48	55	37	41	45	55	56	58	45	47	47.0		
Silver Peak	Min. 41	38	36	34	38	38	45	47	48	40	57	49	47	40	45	33	48	4																

CLIMATOLOGICAL DATA FOR MAY, 1898.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).						Precipitation (inches).				Sky.				Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (inches).	Number rainy days.	Number clear days.	Number partly cloudy days.		Number overcast days.	Prevailing direction of wind.	
NORTHERN SECTION.																					
Austin—4	Lander	6,594	11	48.5	—2.8	75	10	29	3	30	1.18	+2.50	0.77	T	12	1	10	17	SW	M. D. Murphy	
Battle Mountain	Lander	4,511	28	54.0	—1.5	84	9	38	19	39	2.93	+2.03	0.60	0	9	11	7	13	W	†F. A. Limbaugh	
Beowawe	Eureka	4,635	28	54.0	—4.9	84	10	37	20	34	1.50	+0.77	0.59	0	4	4	0	30	S	†E. F. Wolcott	
Blaine	Elko			49.6		79	11	23	20	47	2.81		0.70	5.0	11	9	9	13	SW	E. J. Jones	
Carlin	Elko	4,897	28																	J. A. Ferraro	
Carson City—1	Ormsby	4,660	49	53.9	—2.1	80	11	29	20	47	0.32	—0.31	0.17	0	4	11	12	8	SW	C. W. Friend	
Carson City (W. B.)—4	Ormsby	4,720	14	51.8	—3.0	78	9	31	23	42	0.39	—0.22	0.23	0	4	10	13	8	SW	U. S. Weather Bureau	
Clover Valley	Elko	6,000																		W. M. Angel	
Crane's Ranch	Elko	5,350	11								3.06	+1.31	0.55	0	12	14	7	10	W	W. T. Crane	
Elko—1	Elko	7,063	28	17.1	—8.2	80	13	20	20	46	2.76	+2.13	0.66	0	7	15	16	0	NE	C. H. Sproule	
Ely—1	White Pine	6,000	11	49.0	—1.7	76	12	25	3	40	3.50	+1.69	0.60	T	11	3	18	10	S	M. B. Garaghan	
Fenelon	Elko	6,128	11	44.1	—11.7	81	10	24	3	33	1.75	+0.73	0.49	2.0	7	2	12	17	W	†F. H. Macdonell	
Golconda	Humboldt	4,392	20	54.0	—9.1	72	12	40	2	25	0.79	—0.31	0.51	0	6	14	3	14	SW	†J. A. Langwith	
Halleck	Elko	5,229	26	54.9	—4.1	81	26	32	4	28	1.15	+0.17	0.35	0	6	3	10	18	E	†J. E. Murray	
Hot Springs	Churchill	4,072	11	66.6	+6.2	87	10	52	1	31	T	—0.27	T	0	0	20	2	9	SW	†H. A. Powers	
Humboldt	Humboldt	4,236	27	53.8	—4.4	83	10	40	19	27	1.28	+0.58	0.40	0	5	12	9	10	NE	†J. J. Cullen	
Lewers' Ranch—1	Washoe	5,200	11	51.3	—2.7	78	10	28	23	37	1.07	—0.73	0.28	0	7	8	22	1	SW	E. Lewers	
Lovelock	Humboldt	3,977	7	55.2	—7.9	87	31	40	19	34	1.55	+1.08	0.45	0	8	15	8	8	N	G. B. Stebbins	
aMartin's Ranch—1	Douglas	4,830		52.9		79	10	30	22	42	0.79		0.54	0	2	26	1	3	SW	J. H. Martin	
McGill—1	White Pine	5,200		52.0		78	9	27	23	43	1.82		0.41	0	10	11	10	10	S	Jerry Kent	
Mill City	Humboldt	4,225	10	55.6	—1.6	90	10	40	3	35	1.70	+0.72	1.00	0	3	13	1	17	W	†H. J. Humphrey	
Monitor Mill—1	White Pine	6,400		48.0		79	11	24	2	45	2.48		0.69	3.0	11	2	13	16	S	Jas. B. Orr	
Osceola—1	White Pine	6,590		54.6		79	12	30	3	31	1.70			3.0	5	10	2	19	SW	Jas. H. Marriott	
Palisade	Eureka	4,821	17	58.2	+0.8	82	4	35	20	35	0.50	—0.17	0.40	0	2	25	0	6	W	†W. C. Owen	
Reno—1	Washoe	4,481	28	51.7	—4.9	80	9	33	4	44	0.95	+0.42	0.31	0	4	17	9	5	W	J. J. Sullivan	
Ruby Valley	Elko	6,000	4								2.65	+1.34	0.67	0	13	7	9	15	SW	Miss Jennie Williams	
St. Clair—1	Churchill	4,009	7	55.2	+2.6	81	11	35	1	34	2.73	+1.66	0.97	0	9	11	11	9	W	C. Allen	
Spring Valley	Lyron			54.0		80	10	35	23	35	0.21		0.20	0	2	13	7	11	W	Lewis L. Burt	
Tecoma	Elko	4,812	21	47.7	—11.4	70	11	38	3	32	4.90	+0.39	1.00	0	1	8	14	9	W	†W. T. Onyon	
Toano	Elko	5,975	29	50.4	—4.0	80	10	30	3	24	4.04	+3.08	1.50	3.0	8	3	6	22	SE	†W. S. Spencer	
Tuscarora—1	Elko	6,400	8																	E. H. Geiselman	
Verdi	Washoe	4,895	9	51.6	—1.6	99	5	30	1	52	0.91	—0.41	0.50	0	4	23	4	4	SW	†E. L. King	
Wadsworth	Washoe	4,077	27	58.4	—4.7	85	10	40	7	38	1.37	+0.94	0.85	0	4	21	2	8	—	†G. A. Macpherson	
Wells—1	Elko	5,628	28	49.9	—5.3	86	11	21	4	46	1.41	+0.52	0.34	0	11	7	9	15	W	A. Fisher	
Winnemucca—1	Humboldt	4,432	20	52.2	—2.5	79	10	30	20	40	1.59	+0.52	0.49	0	10	6	11	14	SW	C. A. Rogers	
SOUTHERN SECTION.																					
Bunkerville	Lincoln										1.35		0.65	0	4	18	3	10	SW	Miss Emily J. Lee	
Candelaria—1	Esmeralda	5,783	9	54.4	—2.7	86	22	30	16	40	1.25	+0.55	0.85	2.0	5	23	3	5	N	Fred Corkhill	
Darrough Ranch	Nye	4,500																		Mrs. J. T. Darrough	
Empire Ranch—1	Nye	6,990	6	52.7	—3.4	81	11	30	3	38	1.36	—0.36	0.50	6.8	12	8	4	19	S	Miss Bessie Potts	
Hawthorne—1	Esmeralda	4,569	11	56.4	+1.4	82	10	34	16	39	0.95	+0.50	0.28	0	7	9	10	12	NW	C. P. Mengel	
Keyser's Springs	Nye	5,490		56.9		86	11	32	5	38	1.80		0.45	0	7	9	19	3	SW	Eugene Lock	
Las Vegas—1	Lincoln	2,074		62.3		85	7	41	6	39	0.20		0.10	0	3	20	7	4	W	E. B. Kiel	
Midas—1	Nye	7,200		48.1		75	10	27	3	34	3.19		0.85	17.5	14	5	14	12	W	Geo. Nicholl	
Palmetto—1	Esmeralda	6,500	9	49.6	—2.2	77	10	27	1	42	4.05	+2.66	1.80	32.0	8	19	3	9	SE	Wm. Oothout	
Panaca	Lincoln			58.7		93	11	27	5	50	1.76		0.71	0	6	13	9	9	S	A. H. Wedge	
St. Thomas—1	Lincoln	1,600																		Geo. B. Whitney	
San Antonio—1	Nye	4,500		53.6		85	9	25	3	47	0.83		0.45	0	3	8	4	19	NE	Mrs. Eli Baker	
Silver Peak—1	Esmeralda	4,382		61.0		83	27	35	16	41	2.00		1.30	0	3	7	6	7	S	Chas. G. Fogg	
Sodaville—1	Nye	4,665		57.2		86	10	33	16	40	2.16		0.87	0	7	9	5	17	N	T. G. Watterson	
Tybo—1	Nye	6,500	7	51.8	—2.4	80	11	28	4	41	4.15	+2.74	1.10	0	7	14	12	5	W	Jas. B. Gilmore	
Means or Extremes					51.8	—3.5	93	11	20	20	52	1.84	+0.91	1.80	1.6	7	11	9	11	W	Means or Extremes

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. †Agent S. P. R. R. Co. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

Killing Frosts—Carson City, 3, 4, 8, 9, 20, 23, 25, 29, 30; Blaine, 5, 9, 20; Beowawe, 20, 24; Empire Ranch, 3, 4, 20, 24, 25; Crane's Ranch, 25; Ely, 2, 3, 4, 19; Midas, 2, 3, 5, 15, 19, 22; Osceola, 20, 21; Ruby Valley, 2, 3, 4; Wells, 14; Tybo, 3, 4, 10.

Light Frosts—Blaine, 2, 4, 8, 19, 24, 25, 29, 30; Beowawe, 5; Ely, 5, 8, 9; Keyser's Springs, 5, 20, 28; Lewers' Ranch, 4, 20, 23, 30; McGill, 27; Midas, 1, 3, 4, 5, 15, 16, 25, 30; Panaca, 4, 5; Ruby Valley, 1, 5, 6, 27; San Antonio, 3, 18, 26; Spring Valley, 23; Wells, 2, 7, 9, 19, 27.

Thunderstorms—Blaine, 15; Carson City, 12; Empire Ranch, 2, 3, 27;

Fenelon, 11, 12, 13, 16, 17, 18, 19, 26; Midas, 6, 27; Palmetto, 15, 16, 17, 18, 23; Reno, 12, 13; Silver Peak, 17; Spring Valley, 12, 13; Toano, 16; Tybo, 2, 15, 17, 18, 19; Wells, 14, 15, 18.

Solar Halo—Carson City, 10, 12, 14, 17, 26; Fenelon, 10; Toano, 29.

Lunar Halo—Midas, 1; Toano, 26, 27, 31.

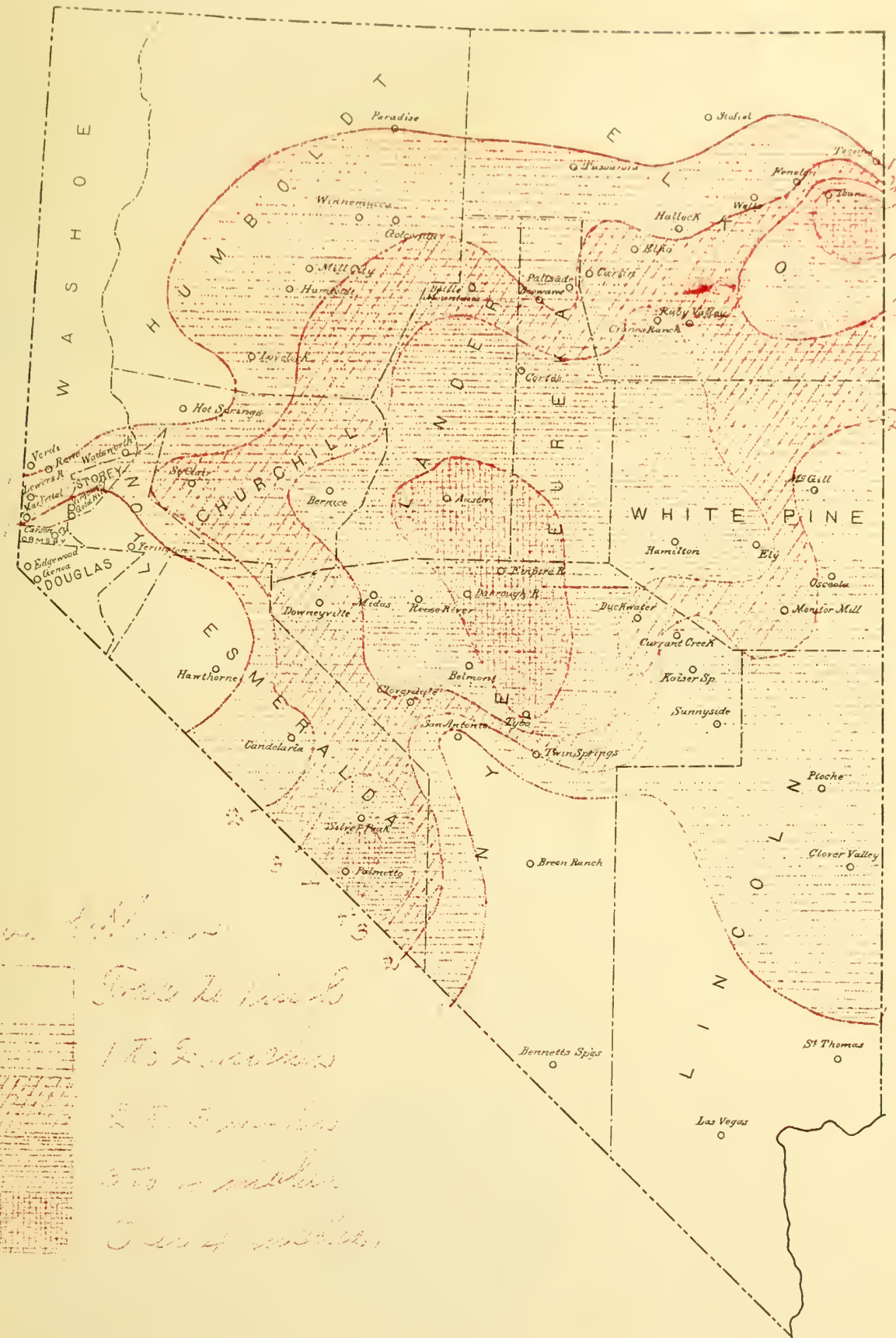
Hail—Blaine, 22; Crane's Ranch, 2; Ely, 2, 3, 4, 7, 18; Empire Ranch, 7, 14, 17; Keyser's Springs, 18; Las Vegas, 3; Midas, 6, 14, 18, 27, 29; Monitor Mill, 13, 18, 19; Panaca, 16, 19, 24; Toano, 16; Tybo, 19.

Sleet—Candelaria, 15; Empire Ranch, 2, 3, 15, 16, 18, 27; Midas, 7; Palmetto, 15, 16, 17, 18, 23; Tybo, 1, 2, 15, 16, 18, 27.

DAILY PRECIPITATION FOR MAY, 1898.

Stations.	Day of Month.																															Totals.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
NORTHERN SECTION.																																	
Austin	.64	.28				.08						.14		.77	.25	.33	.16	.33					.68				.50	.02				4.18	
Battle Mountain	.40	.22												.14	.42	.60	.40	.40				.57					.02	.16				2.93	
Beowawe	T					T								.25	.35		.40				T						.50					1.50	
Blaine	.04	.05		.25		.06							.20		.70	.50	.25	.15			T	.11					T					2.81	
Carlin																																	
Carson City	.17	.05											T		.09	.01	T		T									T				0.32	
Carson City (W. B.)	.18	.09											T		.11	T	.01	T		T								T				0.39	
Clover Valley															.23	.33	.55	.28														3.06	
Crane's Ranch	.22	.16		.16							T		.16	.05	.25	.60	.30	T				.55			T		.45	.02				2.76	
Elko	.10	T	T																									.05	.06				
Ely		.20	.60	.50		.10							.10	.25	.60	.40	.25	.35	.15													3.50	
Fenelon	.25		.10											.20	.25	.40	T	.25									.30					1.75	
Golconda														.20	.25	.40	T	.25	.03								.03	.08	.05			0.79	
Halleck				.04											T	.30	.35		.20			T	.18					.08				1.15	
Hot Springs	T																															T	
Humboldt		.30													.28	.40		.20				.10						T				1.28	
Lewers' Ranch	.28	.12												T	.18	T	.02	T	.05									.19	.23			1.07	
Lovelock	.15	.30													.25	.45	.18	.04				.13							.05			1.55	
McGill	.19	.21	.10	.08		.20										.20	.15	.21	.44													1.82	
Mill City	1.00														.30			.40														1.70	
Martin's Ranch		.54	.25																													0.79	
Monitor Mill	.02	.18	.29	.41		T							T		.41	.69	.16	.18	.07									.02				2.48	
Osceola																																1.70	
Palisade																													.40			0.50	
Reno	.24													T	.30	T												.10				0.95	
Ruby Valley		.25	T	.15		.02	.02							.40	.05	.35	.30	.67	.02	.03								.13				2.65	
Spring Valley															.20	.01	T		T													0.21	
St. Clair	.58	.97												.36	.44	.02			.07									.15	.08			2.73	
Tecoma	1.00																															1.00	
Toano	.51	.10	.12		T	.40							T	.68	.30		.50		.43									T				4.04	
Tuscarora																																	
Verdi	.01													T																		0.91	
Wadsworth	.15														.85													.10				1.37	
Wells	.06	.07	.05			.05								.05	.20	.34	.10	.28	.10		.27							.11				1.41	
Winnemucca	.11	.09												T	.12	.27	.13	.10	.10									.49	.04			1.59	
SOUTHERN SECTION.																																	
Bunkerville	.30	.15	.25												T	.65	T															1.35	
Candelaria	.83	.18													.13	.06	T										T					1.25	
Darrough Ranch																																	
Empire Ranch	.50	.25	.20			T	.06						.01	T	.05	.06	.05	.08	.03									.05				1.36	
Hawthorne	.06	.13													.28	.19		.15										.06				0.95	
Keyser's Springs	.30	.35													.45	.20	.05	.35	.10									T				1.80	
Las Vegas	.08														.02																	0.20	
Midas	.58	.10	T			T	.02				.01	.03	T	.28	.85	.30	.01	.15										.27	.18			3.19	
Palmetto	1.80	.15									.05				.40	.60	.55	.10										T				4.05	
Sodaville																.71	.05	.30		T						.10						1.76	
Panaca	.10		.50																														
St. Thomas																																0.83	
San Antonio															.45	.13		.25															
Silver Peak													T		.15	.30	T		T													2.16	
Sodaville	.45	.07													.35	.87	T	.04															4.15
Tybo	.75	.50	T			T							T		.90	1.10	.60	.10										.20					

TOTAL PRECIPITATION FOR MAY, 1898.



*Low precipitation
from the north
1 to 2 inches
2 to 3 inches
3 to 4 inches
5 to 6 inches*

CARSON CITY, NEVADA:

STATE PRINTING OFFICE, -  - J. G. MCCARTHY, SUPT.

1898

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR JULY, 1898.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU.

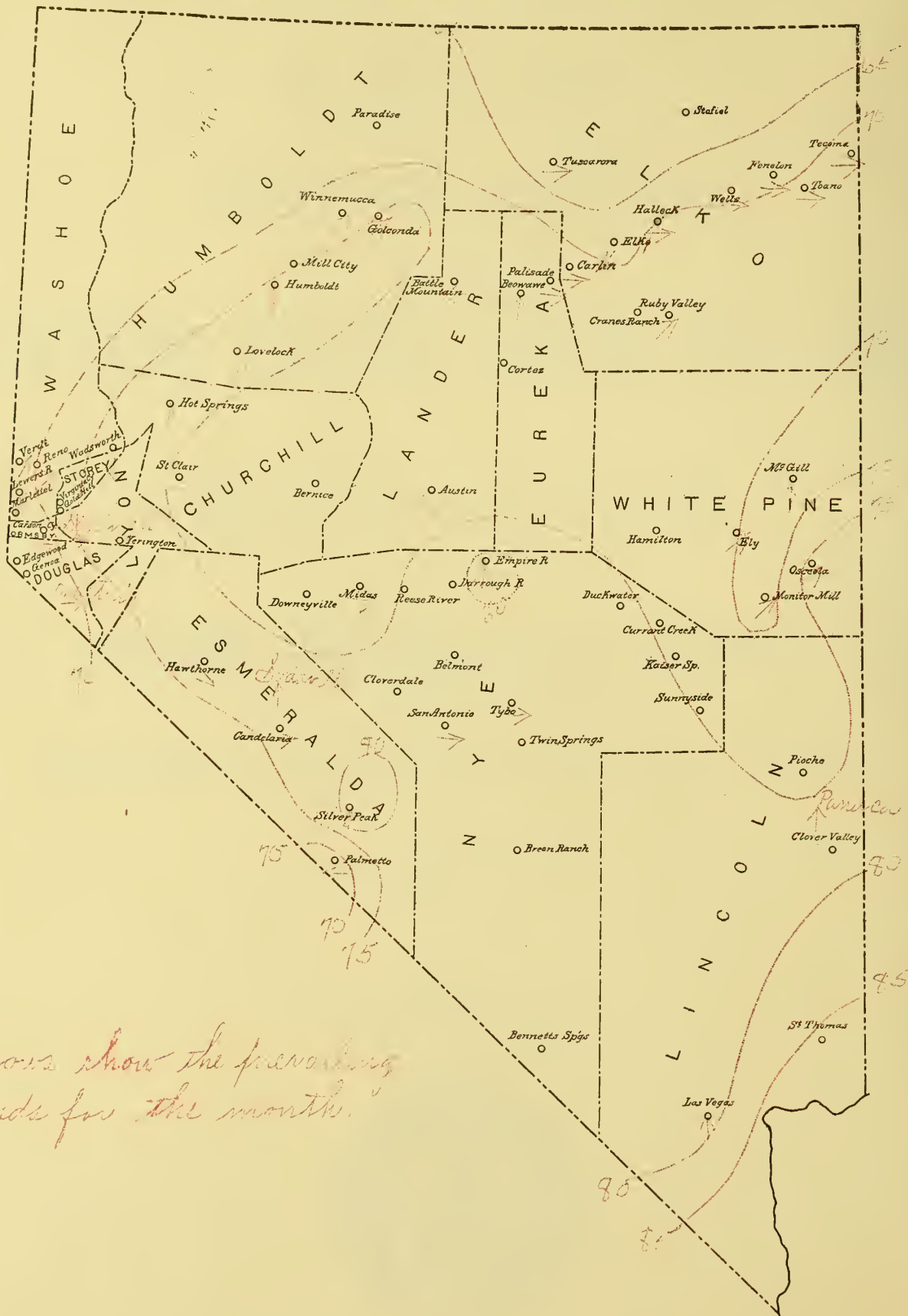
BY

R. F. YOUNG,

OBSERVER AND SECTION DIRECTOR,
CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR JULY, 1898.



Arrows show the prevailing winds for the month.

U. S. DEPARTMENT OF AGRICULTURE,

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

IN COOPERATION WITH THE NEVADA STATE WEATHER SERVICE.

Central Office, } WILLIS L. MOORE,
WASHINGTON, D. C. } CHIEF.

NEVADA SECTION,

R. F. YOUNG, Section Director.
CARSON CITY, NEV.

VOL. XII.

CARSON CITY, NEVADA

No. 7.

ATMOSPHERIC PRESSURE.

There were no marked changes in the pressure during July, and the average for the month did not vary greatly from the normal. The lowest pressure prevailed from the 15th to the 19th.

The record for the month at Carson City and Winnemucca was as follows:

Carson City—Mean, 29.90 inches; highest, 30.09, on 23d; lowest, 29.73, on 19th.

Winnemucca—Mean, 29.80 inches; highest, 30.11, on 2d; lowest, 29.69, on 15th.

TEMPERATURE.

Throughout the greater part of July the temperatures were comparatively mild, although during the last week extremely warm weather prevailed in all sections. The month averaged about one degree cooler than usual in the northern half of the State, while the southern half averaged somewhat warmer than usual. A maximum of 100 degrees or above occurred over the greater portion of the State; at St. Thomas the maximum was 100 degrees or above on every day but one. The highest July temperature at Carson in nineteen year's record, was 102, in 1889, on the 20th, and the lowest, 34, in 1888, on the 1st; the highest mean was 73, in 1883, and lowest, 66, in 1892. The highest July temperature at Winnemucca in twenty year's record was 104, in 1877, and the lowest 37, in 1877; the highest mean was 76, in 1888, and lowest 68, in 1897. The mean for the month was 73.5, or about one degree below the normal. The highest monthly mean was 88.6, at St. Thomas, and lowest 61.1, at Tuscarora. The highest recorded was 114, at St. Thomas on the 28th, and lowest 30, at Tuscarora on the 18th. The greatest daily range was 63, at Elko on the 4th, and greatest monthly range 69, at Elko.

PRECIPITATION.

July was an unusually dry month in all sections of the State. A measurable amount of precipitation fell at only about half the stations, and at no station did the amount equal one inch. The greatest July rainfall at Carson City during the past nineteen years was 1.25 inches, in 1885; there have been five Julys with no rain. The greatest at Winnemucca in twenty years' record was 0.61, in 1886, while there were four Julys during this period with no rain.

The average for the State was 0.12 of an inch, or less than half the usual amount. The greatest monthly amount was 0.96 of an inch, at Panaca, while at 16 stations none fell. The greatest amount in twenty-four hours, 0.86, occurred at Panaca on the 11th. Average number of days with .01 or more, 1.

WIND AND WEATHER.

The prevailing winds were from the west. Following is the wind record for the month at stations named: Carson Observatory—Total movement, 3,441 miles; maximum velocity, 28 miles, southwest, on 13th. Central Station—Total movement, 5,139 miles; maximum velocity, 35 miles, west, on the 13th. Winnemucca—Total movement, 6,962 miles; maximum velocity, 42 miles, southwest, on 13th.

OBSERVERS' REMARKS.

Blaine—July was an exceedingly hot and dry month, no rain to speak of; high winds in afternoon, but an exceptionally good season. Haying is about all completed, both alfalfa and timothy and wild grass, with an abundant yield. Barley nearly ready for the reaper; spring wheat ripening, but, owing to so much hot, dry weather, there is indication of turning to heat.

L. J. JOSE.

Elko—A very hot month, with warm nights, the latter being an unusual thing for this section.

C. H. SPENCE.

Martin's Ranch—The heat has been excessive during July. Country very dry and crops suffering.

J. H. MARTIN.

Midas—Hay crop rather light, quality good. Feed on the range scorched by the long continued hot term. Smoky atmosphere from 23d to 30th.

Geo. NICHOLS.

Panaca—Heavy thunderstorm with high southwest wind on 9th.

A. H. WEDGE.

Sodaville—Very smoky atmosphere the last part of the month.

T. G. WATKINSON.

Spring Valley—One of the driest seasons seen here for years. In places potatoes are not worth digging, and wheat not worth cutting.

LEWIS L. BERT.

Darrough Ranch—The weather during July was intensely hot, and no rain in this vicinity. First crop of hay all in, and second crop promises a fair yield. Barley ripe, heavy crop. Wheat will be ready to cut in a week. Range cattle looking well, plenty of outside feed, but great scarcity of water.

MRS. J. T. DARROUGH.

CONVENTION OF WEATHER BUREAU OFFICIALS.

The Chief of Weather Bureau authorizes the announcement of a Convention of Weather Bureau officials, to be held at Omaha, Nebraska, on Thursday and Friday, October 20th and 21st. The object of the convention is to afford an opportunity for the discussion of methods of extension and improvement of the work of the Bureau. The convention will be held in the rooms of the Commercial Club, in the Board of Trade building.

WEATHER AND CROP REVIEW.

Week ending July 4th—The weather during the past week has been very favorable for haying, and the crop is being saved in prime condition. In the western counties, and in a few localities in Elko, the greater portion of the alfalfa crop is in the stack. No grain has been harvested in the middle or northern counties, although early wheat is turning in some of the warmer sections. No rain occurred during the week, which is about the normal condition in most sections. Rain would be of great value in keeping the range grass fresh, but would result in much damage to cut hay remaining in the field.

Week ending July 11th—During the week ending July 11th light showers fell in the western portion of the State, sufficient in a few localities to benefit ranges and grain. Haying continued over the northern half with favorable conditions. In some sections of Lyon and Churchill the second crop of alfalfa is six to twenty inches high. Wheat and barley are maturing rapidly in the western counties and heading in the north portion. Range feed getting dry in some sections, but still abundant, and cattle are fat.

Week ending July 18th—A heavy shower fell at Fort Halleck on the 12th; light showers in other localities in Elko county and in White Pine and Esmeralda. The temperature was generally above the normal. The water supply seems to be holding out well in Lincoln, and in many localities in Elko and White Pine counties, but the scarcity is general in other portions of the State. The second crop of alfalfa will, however, not be such a general failure as was expected earlier in the season, and there will be sufficient moisture to mature all but the late grain crop. Potatoes and gardens drying up in lower Mason Valley.

Week ending July 25th—Cool nights and bright, warm days prevailed during the past week, with no rain. Fine weather for haying, which is still in progress in Elko, Eureka and White Pine counties; in all other sections the first crop of alfalfa is in the stack and the greater portion of meadow and wild have been cut. The second crop of alfalfa promises a moderate harvest in localities in nearly all counties; in southern Lincoln the third crop is ready to cut. Some barley and early wheat have been harvested in Churchill and Lyon, and are maturing in all the western counties. Very few reports have been made as to the probable yield of grain, but are favorable so far as made. Along the eastern border of the State there has been sufficient rain to keep the range grass in good condition; elsewhere it is drying up rapidly.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JULY, 1898.

Stations.	Day of Month.																															Monthly means.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
NORTHERN SECTION.																																	
Austin	Max. 64	75	83	84	82	84	84	82	85	88	88	82	87	87	91	87	80	81	82	83	80	80	84	87	87	87	93	92	93	93	90	91	84.6
Blaine	Min. 38	47	63	60	60	60	62	58	61	60	60	59	59	55	57	55	52	53	52	56	53	54	54	62	62	57	58	64	63	63	60	64	57.2
Carson City	Min.																																
Carson City (W. B.)	Max. 74	83	86	85	84	85	84	83	87	90	89	88	82	90	89	83	86	88	89	82	80	78	88	90	90	93	97	98	97	98	97	99	87.8
Elko	Min. 45	41	41	46	46	46	49	49	49	51	53	54	43	43	44	48	49	47	44	49	47	47	41	46	46	50	55	54	54	52	52	48.1	
Ely	Max. 46	47	48	52	52	56	53	53	52	51	58	59	59	45	49	55	51	48	51	53	54	53	46	50	45	53	54	60	57	61	56	52.5	
Lewers' Ranch	Max. 87	91	100	94	96	96	98	97	101	98	96	93	96	90	90	85	84	90	85	84	85	84	91	96	101	103	99	101	102	101	102	100	95.2
Martin's Ranch	Min. 34	39	38	37	34	48	50	49	42	36	41	50	52	47	41	40	36	37	40	41	42	39	42	40	42	38	37	41	46	42	44	41	41.5
Monitor Mill	Max. 75	85	90	87	87	90	92	91	93	77	77	78	79	91	92	93	89	87	88	87	83	87	89	90	91	95	94	93	95	96	98	88	89.4
Oseola	Min. 36	40	48	47	50	50	50	52	53	58	55	57	59	52	50	52	43	43	43	43	43	43	48	50	48	53	56	54	54	53	53	50.8	
Reno	Max. 74	80	85	85	80	84	84	84	85	81	88	85	87	87	86	84	84	87	87	80	78	76	87	91	92	92	96	97	97	97	98	98	86.2
St. Clair	Min. 38	44	46	42	42	49	51	54	51	57	50	51	57	47	46	43	43	46	46	52	50	45	43	50	44	50	56	57	58	57	57	49.7	
Spring Valley	Max. 81	79	82	83	80	83	81	80	83	86	85	84	83	85	81	84	81	81	80	82	84	86	87	92	93	94	93	94	93	92	92	92	84.7
Tuscarora	Min. 46	48	50	49	48	47	48	47	50	51	48	52	55	42	47	46	47	48	47	49	48	46	43	39	41	51	51	54	57	56	52	48.7	
Wells	Max. 71	78	85	91	89	87	89	87	91	92	91	92	91	92	91	87	87	86	86	84	82	85	87	89	92	94	95	98	96	94	90	88.0	
Winnemucca	Min. 34	37	50	54	54	53	54	51	52	55	53	53	54	45	46	45	46	44	44	47	47	44	44	46	46	52	47	50	51	53	50	51	49.4
Yreka	Max. 79	83	90	92	92	90	92	93	91	90	90	91	95	103	99	95	94	89	95	85	87	88	94	96	96	96	104	94	94	92	93	93	92.1
Osceola	Min. 38	37	40	43	44	40	50	55	53	52	54	56	44	45	43	45	49	39	38	45	45	44	45	45	45	45	55	50	47	46	46	46	46.2
Reno	Max. 79	72	73	72	72	75	80	88	76	82	88	77	85	93	93	95	93	91	88	86	88	85	80	86	89	91	95	96	93	96	92	95	85.2
St. Clair	Min. 54	66	64	68	64	68	71	68	60	64	66	64	62	70	72	75	72	66	62	64	68	70	70	72	72	72	72	72	75	70	74	66.6	
Spring Valley	Max. 73	81	87	87	85	85	87	82	87	90	92	88	88	91	85	87	87	86	88	88	87	84	89	92	94	96	93	95	99	98	97	98	88.0
Tuscarora	Min. 44	57	58	50	57	54	55	53	53	53	57	53	55	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	52.4	
Wells	Max. 69	75	80	89	90	88	89	88	89	92	95	90	91	90	92	89	87	86	86	87	87	84	84	87	92	95	94	98	98	100	98	89.0	
Winnemucca	Min. 45	49	50	55	52	60	59	62	58	64	67	60	60	50	50	52	53	57	53	59	50	48	53	61	56	59	61	60	60	61	65	56.8	
Yreka	Max. 82	86	88	87	86	87	86	87	96	96	96	96	96	92	93	88	92	88	90	89	86	82	91	96	98	98	100	102	101	104	102	102	90.9
Yreka	Min. 49	51	56	55	54	56	54	56	54	61	60	61	63	64	65	66	67	64	63	61	60	57	60	61	63	65	67	68	67	66	66	60.4	
Yreka	Max. 54	68	71	80	76	76	76	85	83	85	88	86	84	82	82	83	82	75	77	79	73	80	80	81	83	86	88	91	92	92	88	87	81.4
Yreka	Min. 35	38	40	46	44	44	44	42	46	50	47	46	44	46	44	46	44	46	44	40	35	40	35	31	33	39	37	42	40	39	39	40.8	
Yreka	Max. 70	72	90	92	93	91	94	93	95	96	90	96	94	96	94	96	90	92	88	87	92	90	89	89	93	93	97	99	98	96	96	96	91.2
Yreka	Min. 40	36	40	50	52	54	53	52	54	58	50	51	52	54	52	50	42	40	50	54	52	50	50	50	55	54	50	50	46	45	46	49.4	
Yreka	Max. 73	81	89	88	88	88	89	87	91	92	94	92	90	84	84	82	87	82	80	86	84	86	90	94	96	98	98	98	98	98	97	89.6	
Yreka	Min. 45	40	49	54	54	56	58	65	63	61	54	63	48	47	51	57	53	59	51	54	56	50	50	56	64	60	66	59	58	62	65	54.9	
SOUTHERN SECTION.																																	
Candelaria	Max. 73	83	90	89	82	90	92	88	92	94	85	91	96	95	99	94	92	89	92	90	87	88	89	94	96	96	99	99	99	99	98	98	91.6
Empire Ranch	Min. 44	50	56	59	60	63	62	60	57	61	66	66	62	60	60	60	60	60	60	59	59	58	59	59	61	63	64	68	69	71	69	69	60.0
Hawthorne	Max. 104	100	102	99	95	98	98	97	96	95	96	101	100	100	100	100	100	95	80	89	90	85	90	94	94	96	96	96	101	100	102	102	94.7
Las Vegas	Min. 45	60	65	70	65	70	74	76	61	73	68	60	62	70	64	72	67	60	50	56	57	70	72	59	59	59	66	72	68	70	72	70	65.1
Midas	Max. 73	82	90	89	90	91	88	85	93	95	93	94	94	90	95	96	90	89	87	89	89	87	89	89	95	93	93	97	99	100	101	100	92.0
Palmetto	Min. 51	51	52	64	61	63	63	60	60	65	65	62	62	59	60	56	62	63	63	62	58	62	59	59	60	60	60	63	68	70	68	65	61.2
San Antonio	Max. 80	81	91	91	83	88	93	82	83	93	83	86	91	90	88	90	89	87	82	86	92	92	90	95	83	83	83	83	83	83	83	83	89.1
San Antonio	Min. 70	71	60	65	70	60	62	66	68	74	74	69	71	70	68	60	72	69	57	60	59	67	65	83	63	66	73	72	75	75	75	67.9	
Silver Peak	Max. 69	76	83	85	85	83	87	86	86	89	83	85	88	83	90	88	82	84	86	82	83	82	83	83	83	83	83	83	83	83	83	83	86.7
Sodaville	Min. 48	54	58	54	58	57	56	56	54	54	55	61	69	59	61	53	53	56	56	51	59	62	61	55	66	65	64	65	64	62	65	58.4	
Tybo	Max. 73	82	88	87	87	85	87	85	87	88	85	85	85	91	94	94	89	89	85	81	81	83	86	88	94	96	97	99	98	98	98	98	88.0
Tybo	Min. 43	38	46	53	53	50	47	49	47	48	57	51	49	48	50	46	46	49	47	53	43	43	51	46	47	52	57	54	58	56	57	49.6	
Tybo	Max.																																

CLIMATOLOGICAL DATA FOR JULY, 1898.

Stations	Counties	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (inches).				Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number overcast days.		
NORTHERN SECTION.																				
Austin—1	Lander	6,591	11	70.9	+2.0	93	26	39	1	31	0.10	-0.11	0.34	0	2	15	13	3	M. D. Murphy	
Battle Mountain	Lander	4,511	25	71.5	-2.9	102	13	60	17	40	0	-0.13	0	0	0	27	1	3	†F. A. Limbaugh	
Beowawe	Eureka	4,695	28	77.2	-0.8	100	28	58	1	31	T	-0.20	T	0	0	6	0	25	†E. F. Wolver	
Blaine	Elko																		E. J. Jones	
Carlin	Elko	4,897	28	71.5	-1.5	102	30	50	1	46	0	-0.17	0	0	0	31	0	0	J. A. Ferraro	
Carson City—1	Ormsby	4,660	19	68.0	-1.0	99	31	40	25	53	0.07	-0.13	0.07	0	1	29	2	0	C. W. Friend	
Carson City (W. R.)—1	Ormsby	4,720	11	69.5	+2.2	99	31	45	14	47	0.05	-0.12	0.05	0	1	29	2	0	U. S. Weather Bureau	
Clover Valley	Elko	6,000									0.12		0.08	0	3	19	10	2	A. H. Wiseman	
Crane's Ranch	Elko	5,350	11																W. T. Crane	
Elko—1	Elko	5,063	28	68.4	-4.7	103	25	34	1	63	T	-0.21	T	0	0	24	7	0	C. H. Sproule	
Ely—1	White Pine	6,000	11	70.1	+2.8	98	30	36	1	47	0.50	-0.07	0.50	0	1	13	15	3	M. B. Garaghan	
Feuclon	Elko	6,128	11	69.9	-5.7	104	24	48	1	45	T	-0.06	T	0	0	13	18	0	†F. H. Macdonell	
Golconda	Humboldt	4,392	20	76.7	-1.6	98	31	56	2	32	0	-0.08	0	0	0	27	4	0	†J. A. Langwith	
Halleck	Elko	5,229	26	72.6	-0.3	106	15	49	1	40	0.20	+0.10	0.14	0	2	15	10	6	†J. E. Murray	
Hot Springs	Churchill	4,072	11	80.8	+0.4	104	27	61	2	30	0	-0.17	0	0	0	27	2	2	†H. A. Powers	
Humboldt	Humboldt	4,236	27	75.6	+1.6	99	27	57	1	32	0	-0.02	0	0	0	25	6	0	†J. J. Cullen	
Lewers' Ranch—1	Washoe	5,200	11	68.0	-0.8	98	31	38	1	48	0.01	-0.19	0.01	0	1	29	2	0	E. Lewers	
Lovelock	Humboldt	3,977	7	76.3	-2.8	102	23	58	14	40	0	-0.02	0	0	0	29	2	0	G. B. Stebbins	
Martin's Ranch—1	Douglas	4,830		66.7		94	29	42	14	47	0		0	0	0	30	1	0	J. H. Martin	
McGill—1	White Pine	5,200		69.2		104	27	37	2	58	0.37		0.37	0	1	23	7	1	Mrs. W. N. McGill	
Mill City	Humboldt	4,225	10																†H. J. Humphrey	
Monitor Mill—1	White Pine	6,400		68.7		98	28	34	1	49	0.14		0.13	0	2	14	11	6	Jas. B. Orr	
Osceola—1	White Pine	6,500		75.7		96	27	54	1	25	0.38			0	3	25	0	6	Jas. H. Marriott	
Palisade	Eureka	4,821	17	70.6	-3.9	98	8	52	19	42	0	-0.13	0	0	0	22	9	0	†W. C. Owen	
Reno—1	Washoe	4,481	28	70.2	-2.9	99	29	44	1	47	0	-0.08	0	0	0	21	10	0	J. E. Stanaway	
Ruby Valley	Elko	6,000	4								0.26	-0.25	0.10	0	4	18	9	4	Miss Jennie Williams	
St. Clair—1	Churchill	4,000	7	72.9	+4.5	100	30	45	1	41	0	-0.30	0	0	0	29	2	0	C. Allen	
Spring Valley	Lyon			75.6		104	30	49	1	37	T		T	0	0	25	5	1	Lewis L. Burt	
Tecoma	Elko	4,812	21	75.3	-2.7	108	19	40	1	40	0	-0.20	0	0	0	24	3	4	†W. T. Onyon	
Toano	Elko	5,975	29	74.0	+0.5	98	14	50	1	32	0.20	-0.05	0.20	0	1	15	10	6	†W. S. Spencer	
Tuscarora—1	Elko	6,400	8	61.1	-4.9	92	28	30	18	54	0.22	+0.08	0.22	0	1	24	7	0	E. H. Geiselman	
Verdi	Washoe	4,895	9	70.6	+1.4	106	28	40	2	49	0	-0.16	0	0	0	30	1	0	†E. L. King	
Wadsworth	Washoe	4,077	27	78.4	-2.0	106	29	50	1	34	0	-0.22	0	0	0	31	0	0	†G. A. Macpherson	
Wells—1	Elko	5,628	28	70.3	-2.7	99	28	40	1	52	0.18	-0.05	0.18	0	1	26	4	1	A. Fisher	
Winnemucca—1	Humboldt	4,432	20	72.2	+0.7	98	27	40	2	44	0.02	-0.13	0.02	0	1	25	4	2	C. A. Rogers	
SOUTHERN SECTION.																				
Bunkerville	Lincoln																		Miss Emily J. Lee	
Candelaria—1	Esmeralda	5,783	9	75.8	+1.4	99	15	44	1	39	T	-0.36	T	0	0	31	0	0	R. F. Laffoon	
Darrough Ranch	Nye	4,500																	Mrs. J. T. Darrough	
Empire Ranch—1	Nye	6,990	6	79.9	+3.5	104	1	45	1	59	0.01	-0.81	0.01	0	1	17	5	9	Miss Bessie Potts	
Hawthorne—1	Esmeralda	4,569	11	76.6	+2.0	101	29	51	1	40	0.20	-0.07	0.20	0	1	20	9	2	C. P. Mengel	
Keyser's Springs	Nye	5,400																	Eugene Lock	
Las Vegas—1	Lincoln	2,074		78.5		103	26	57	29	37	0.05		0.05	0	1	24	5	0	E. B. Kiel	
Midas—1	Nye	7,200		72.6		98	25	48	1	35	0.28		0.20	0	4	19	9	3	Geo. Nicholl	
Palmetto—1	Esmeralda	6,500	9	68.8	+2.0	99	28	38	2	47	0.49	-0.66	0.35	0	5	23	7	1	Wm. Oothout	
Panaca	Lincoln			76.4		109	29	44	1	50	0.96		0.86	0	2	13	17	1	A. H. Wedge	
St. Thomas—1	Lincoln	1,900		88.6		114	28	60	2	46	0		0	0					Geo. B. Whitney	
San Antonio—1	Nye	4,500		75.6		103	31	49	2	48	0		0	0	0	17	3	0	Mrs. Eli Baker	
Silver Peak—1	Esmeralda	4,382		80.7		107	28	51	1	44	T		T	0	0	24	6	1	Chas. G. Fogg	
Sodaville—1	Nye	4,665		79.0		105	26	48	1	48	0.12		0.12	0	1	16	6	9	T. G. Watterson	
Tybo—1	Nye	6,500	7			103	27				0	-0.72	0	0	0	23	7	1	Jas. B. Gilmore	
Means or Extremes				73.5	-0.6	114	28	30	18	63	0.12	-0.18	0.86	0	1	23	6	2	Means or Extremes	

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. †Agent S. P. R. R. Co. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

High Winds—Carson City, 3, 5, 6, 12, 13, 20, 21; McGill, 19; Midas, 7, 8, 9, 10, 11, 19; Osceola, 1, 5, 7, 21, 22, 24, 27.

Thunderstorms—Austin, 13; Beowawe, 12; Carson City, 7, 8; Empire Ranch, 11, 12; Midas, 4, 11, 12, 19; Monitor Mill, 9, 10; Panaca, 9; Palmetto, 4, 8, 29, 30; Ruby Valley, 6, 9, 11, 22, 29; Tybo, 4, 10, 12, 19.

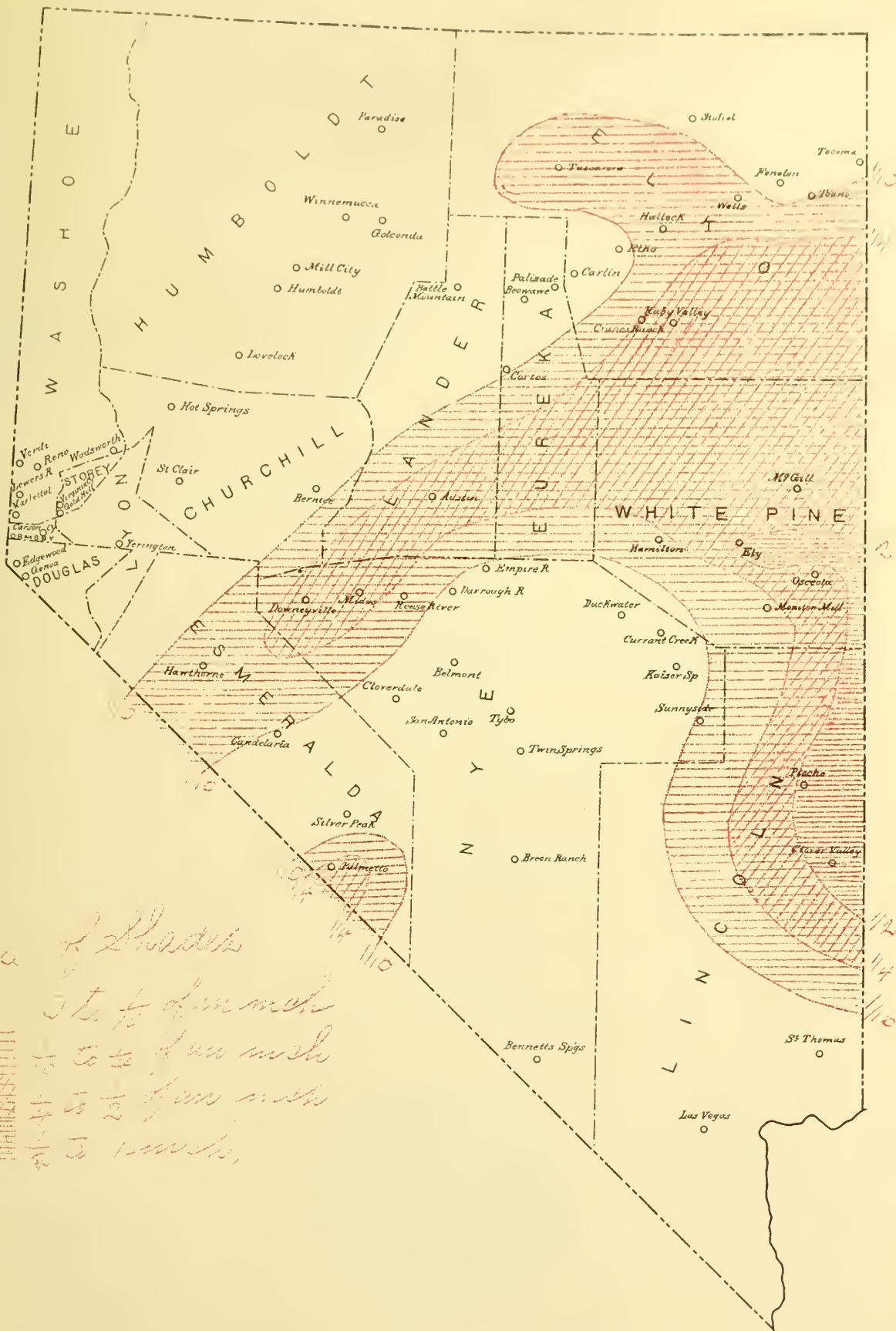
Light Frost—Empire Ranch, 1, 2, 3.

CLIMATE AND CROPS: NEVADA SECTION.

JULY, 1898

[illegible]

TOTAL PRECIPITATION FOR JULY, 1898.



Scale of Shading
 1 to 1/2 inch
 1/2 to 1 inch
 1 to 2 inches
 2 to 3 inches

CARSON CITY, NEVADA:
STATE PRINTING OFFICE, -  - J. G. MCCARTHY, SUPT.
1898

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR AUGUST, 1898.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU.

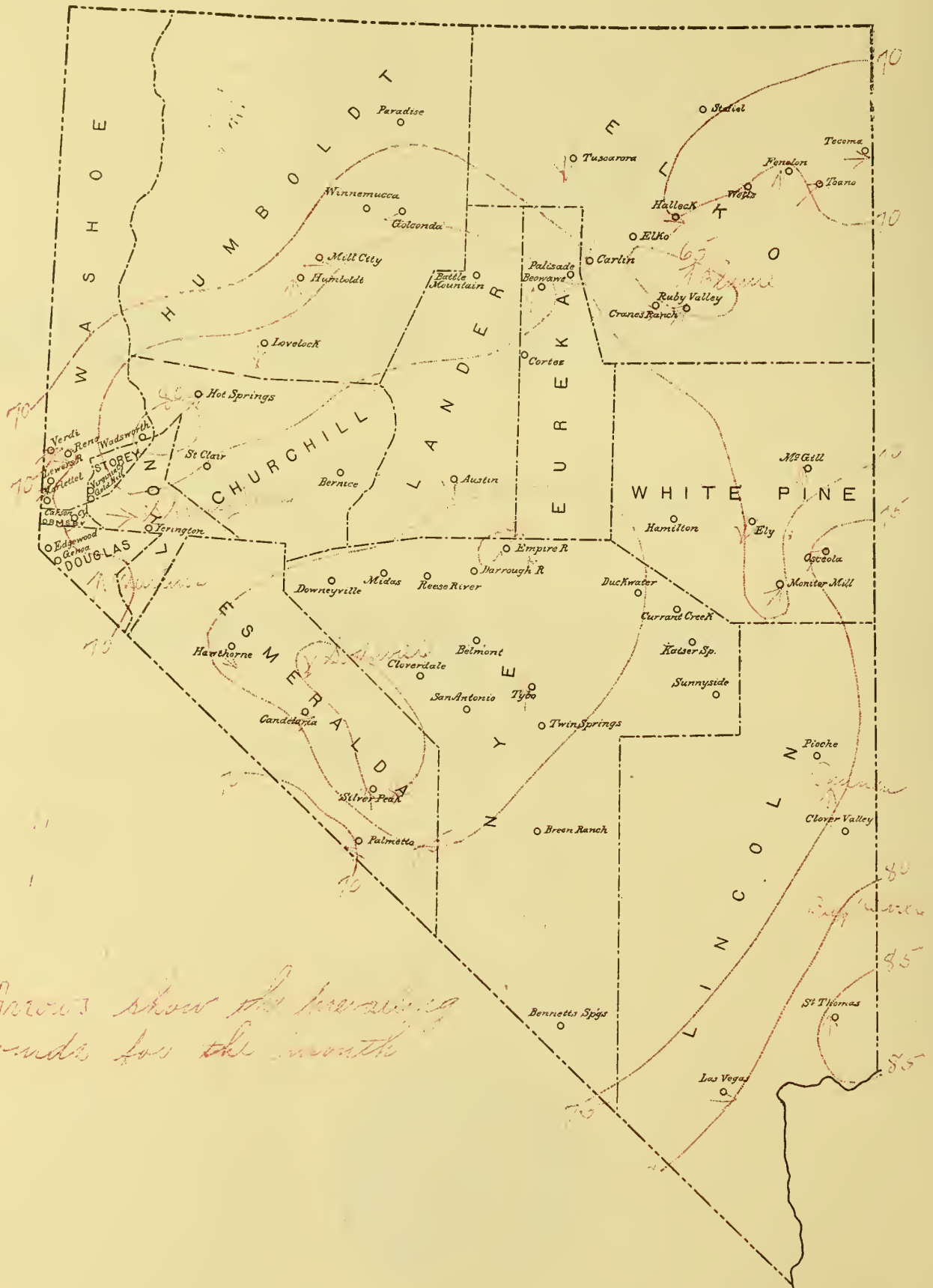
BY

R. F. YOUNG,

OBSERVER AND SECTION DIRECTOR,
CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR AUGUST, 1898.



Arrows show the prevailing winds for the month

U. S. DEPARTMENT OF AGRICULTURE,
CLIMATE AND CROP SERVICE
 OF THE
WEATHER BUREAU.

IN COOPERATION WITH THE NEVADA STATE WEATHER SERVICE.

Central Office,
 WASHINGTON, D. C. }

WILLIS L. MOORE,
 CHIEF. }

NEVADA SECTION,
R. F. YOUNG, Section Director.
 CARSON CITY, NEV.

VOL. XII.

CARSON CITY, NEVADA.

No. 8.

ATMOSPHERIC PRESSURE.

The typical summer pressure conditions prevailed throughout the month, though these conditions were partially broken from the 5th to the 7th and from the 26th to the 29th. During the latter period frequent local thunderstorms with heavy showers occurred, principally in the eastern half of the State.

The record for the month at Carson City and Winnemucca was as follows:

Carson City—Mean, 29.86 inches; highest, 30.04, on 13th; lowest, 29.64, on 31st.

Winnemucca—Mean, 29.84 inches; highest, 30.02, on 13th; lowest, 29.64, on 31st.

TEMPERATURE.

Unusually high temperatures prevailed during the first half of the month, while the latter half averaged somewhat below the normal. A notable feature of the temperature conditions was the unusually warm nights. Frost temperatures occurred in a few localities in the northern section, while a maximum temperature reached 100 degrees in localities in nearly all counties. The warmest August at Carson City during the past nineteen years was in 1886, with a mean of 72; the highest previously recorded was 99, August 14, 1885, and lowest 31, August 30, 1880. The warmest Augusts at Winnemucca during twenty years' record were 1878, 1883, and 1897, with a mean of 74; the highest recorded was 102, in 1882, and the lowest 26, in 1887.

The mean for the month was 73.6, or 1.4 degrees above the normal. The highest monthly mean was 89.2, at St. Thomas, and lowest 63.4, at Blaine. The maximum was 112, at St. Thomas on the 11th, and minimum 29, at Blaine on the 31st. The greatest daily range was 64, at Elko, and least 28, at Osceola and Las Vegas.

PRECIPITATION.

Over a considerable area along the eastern border of the State, including the southern portion of Elko, and extending across White Pine into northern Lincoln county, the precipitation exceeded one inch. The major portion of the State, however, received less than half an inch, while over an extensive area covering portions of Churchill, Humboldt and Lander counties no rain fell. The heaviest August rainfall at Carson in nineteen years was 1.30 inches, in 1896. The heaviest at Winnemucca in a record of twenty years was 0.70 of an inch, in 1896.

The average for the State was 0.45 of an inch, or slightly more than the usual amount. The greatest monthly amount was 2.85 inches, at Ely, while at a number of stations none fell. The greatest amount in twenty-four hours, 1.74, occurred at Darrough Ranch on the 28th. Average number of days with .01 or more, 2.

WIND AND WEATHER.

The prevailing winds were from the southwest, with nearly an equal percentage from the west.

Following is the wind record for the month at stations named: Carson Observatory—Total movement, 3,154 miles; maximum velocity, 36 miles, from south, on 5th. Central Station—Total movement, 4,597 miles; maxi-

imum velocity, 40 miles, from south, on 12th. Winnemucca—Total movement, 6,230 miles; maximum velocity, 40 miles, southwest, on 29th.

Average number of clear days, 18; partly cloudy, 8; cloudy, 5.

OBSERVERS' REMARKS.

Blaine—Harvesting and threshing well along. Crops yielded better than in 1897. Ranges completely burnt up, and many springs dry. This summer has been the driest old settlers ever witnessed, and unless there is early rain or snow, stock will suffer from want of water. Potatoes will be few and small. E. J. JOSEPH.

Candelaria—Sheet lightning observed in northeast at 8 p. m. of 5th and 6th. A thunder shower passed west on the 13th, and one east on the 25th. R. T. LAFFOON.

Clover Valley—Threshing just begun. Second crop of alfalfa being harvested, but there are only a very few ranchers who have any left to put up. A. H. WISEMAN.

Darrough Ranch—The weather has been much cooler the last week of August. Melons ripe and good crop. Barley and wheat all harvested and second crop of alfalfa cut. Range feed very scarce, though horses and cattle are in good condition. Heaviest rain known in this section for years at this time of year fell on 28th, but too late to do much good. Winter squash, beans and potatoes promise heavy crop. Mrs. J. T. DARROUGH.

Las Vegas—Heavy thunderstorm with rain and hail on 5th; hailstones as large as quail eggs. E. B. KIEL.

Martin's Ranch—The third crop of alfalfa has attained a remarkable growth, considering scarcity of moisture. J. H. MARTIN.

Panaca—Frequent heavy thunderstorms in this vicinity during month; one of 26th accompanied by hail. A. H. WEDGE.

St. Thomas—The rainfall during July and August lightest in past five years, being only a trace. GEO. B. WHITNEY.

Silver Peak—A bright meteor in the southeast on 10th. A cloudburst to the south on Palmetto Mountains on 24th, accompanied by heavy thunder. CHAS. G. FOGG.

WEATHER AND CROP REVIEW.

Week ending August 2d—Abnormally high temperatures prevailed the entire week. A maximum temperature of 100 or more occurred in nearly all sections of the State. Nights were also unusually warm. The very dry conditions combined with the extreme heat had a blighting effect on growing crops in many sections, causing corn and gardens to wither and unripe grain to shrink badly. Barley harvest is well advanced except in Elko and White Pine counties, but, as a rule, over the northern half of the State wheat harvest has only fairly begun. Range grass is in a dried-up state, but the supply is sufficient to keep cattle and sheep in good condition.

Week ending August 9th—The extremely warm weather which prevailed during the last week in July continued to the middle of the first week in August; the latter half of the week was somewhat cooler, though still generally above the normal. Frequent showers fell during the closing days of the week, the heaviest generally being in the mountains, but in some localities unusually heavy showers fell in the valleys also. Wheat harvest is progressing rapidly in the western counties, and the barley crop has mostly been cut in this section. Very little grain has been cut in Elko and White Pine. Haying practically finished in the middle and western counties except where second crop alfalfa will be cut. In Elko county considerable wild hay remains to be cut.

Week ending August 16th—Another very warm week; showers in most sections, generally too light to benefit ranges or growing crops. The grain crops are practically matured save in a few localities in Elko and White Pine. Ripening hastened by hot dry weather, but the quality of grain not thought to be injured. Considerable hay baling and threshing done in the western counties. Cattle being taken off ranges in Churchill and Humboldt, but pasturage still plentiful elsewhere.

Week ending August 23d—Cooler weather prevailed the past week in all sections—coolest since the first week of July. Weather clear; no rain. Harvesting wheat and oats in northeast portion and in localities in middle counties. Wild hay harvest continues in a few localities. Second crop of alfalfa doing fairly well in northeast. Potato crop will fall below average. Melons, peaches and plums ripening in Churchill. Range cattle doing well.

Week ending August 30th—Past week warm and continued dry, save for showers in Elko and White Pine. Grain harvest practically finished, except wheat and oats in backward localities in Elko, Eureka and White Pine. Where threshing has begun wheat appears to be yielding better than expected. The ranges have held out remarkably well, considering the long-continued deficiency in rainfall.

Stations.		Day of Month.																															Monthly Means.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
NORTHERN SECTION.																																				
Austin	Max.	92	92	88	85	84	85	78	87	89	92	92	87	87	87	84	83	84	82	85	85	86	86	81	81	82	81	86	86	83	73	73	84			
Austin	Min.	64	62	64	59	56	44	56	57	61	68	66	65	63	65	60	57	55	55	53	53	53	53	58	58	59	59	64	64	59	45	46	56			
Blaine	Max.	87	89	80	84	82	38	37	40	41	42	43	48	51	52	52	48	48	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47			
Blaine	Min.	41	40	43	45	38	37	40	41	42	42	43	48	51	52	52	48	48	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47			
Carson City	Max.	99	99	91	91	90	90	88	90	96	96	97	96	90	89	86	86	89	81	82	82	83	83	82	82	82	82	82	82	82	82	82	82	82		
Carson City (W. B.)	Max.	100	97	91	92	90	87	80	87	90	96	96	96	90	89	86	86	89	81	82	82	83	83	82	82	82	82	82	82	82	82	82	82	82		
Carson City (W. B.)	Min.	61	60	60	56	55	52	51	51	54	58	59	61	56	59	55	50	45	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43		
Elko	Max.	99	100	99	98	92	90	91	89	93	99	100	94	92	93	96	93	91	89	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88		
Elko	Min.	37	36	38	42	37	36	32	32	33	36	43	44	53	55	56	49	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34		
Fly	Max.	92	91	93	91	86	84	85	82	89	90	94	95	90	92	88	89	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88		
Fly	Min.	48	53	53	48	45	46	48	45	50	56	58	60	58	59	52	49	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45		
Lewers' Ranch	Max.	100	97	93	91	91	90	89	80	90	95	96	98	96	92	87	85	88	80	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	
Lewers' Ranch	Min.	69	59	56	55	52	53	51	51	53	56	58	58	56	58	54	49	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	
Martin's Ranch	Max.	94	92	93	86	84	83	83	84	91	93	93	93	87	88	87	86	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	
Martin's Ranch	Min.	36	37	33	32	31	31	31	31	34	33	33	33	30	31	30	29	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	
Monitor Mill	Max.	91	91	92	87	86	85	79	84	90	91	94	95	91	94	93	93	88	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87		
Monitor Mill	Min.	47	55	54	51	50	47	44	51	54	59	62	64	63	63	60	56	52	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	
McCall	Max.	90	92	87	85	86	81	72	81	87	97	95	93	90	90	81	86	89	88	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	
McCall	Min.	38	11	38	46	43	51	44	46	47	45	56	57	57	56	53	50	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	
Oseola	Max.	90	92	90	78	87	85	84	77	87	90	92	92	95	95	94	90	89	91	90	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	
Oseola	Min.	68	64	70	68	64	68	64	68	64	68	74	75	74	76	68	64	70	68	70	68	70	68	70	68	70	68	70	68	70	68	70	68	70	68	
Reno	Max.	98	97	92	83	87	85	87	84	88	94	95	95	89	89	83	86	87	84	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	
Reno	Min.	68	64	70	68	64	68	64	68	64	68	74	75	74	76	68	64	70	68	70	68	70	68	70	68	70	68	70	68	70	68	70	68	70	68	
St. Clair	Max.	90	92	87	85	86	81	72	81	87	97	95	93	90	90	81	86	89	88	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	
St. Clair	Min.	65	63	69	65	60	58	61	60	58	58	67	66	60	60	62	53	49	48	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	
Spring Valley	Max.	104	103	98	92	86	92	90	91	92	93	93	92	96	95	92	93	90	89	94	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	
Spring Valley	Min.	70	68	64	61	60	64	60	59	61	62	60	64	62	64	62	61	59	54	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	
Tuscarora	Max.	88	92	89	81	82	84	88	78	87	88	92	89	87	86	85	87	86	81	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	
Tuscarora	Min.	40	45	55	50	49	44	44	40	40	47	52	54	56	56	53	50	49	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	
Wells	Max.	90	95	95	92	90	88	90	90	95	95	98	95	96	96	91	89	90	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	
Wells	Min.	40	48	55	50	39	41	44	40	40	47	52	54	51	50	52	60	54	42	50	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	
Winnemucca	Max.	95	98	95	89	90	91	88	93	97	100	98	96	92	93	90	88	89	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86
Winnemucca	Min.	60	57	68	60	54	54	52	52	56	63	60	67	60	58	65	65	59	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	
SOUTHERN SECTION.																																				
Candelaria	Max.	99	98	96	92	90	89	88	92	95	99	96	94	95	93	92	94	94	92	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	
Candelaria	Min.	70	68	65	64	57	62	60	59	64	66	67	67	62	65	64	60	61	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	
Empire Ranch	Max.	104	100	98	100	103	97	99	92	99	92	104	102	105	104	98	95	93	98	94	93	98	94	93	98	94	93	98	94	93	98	94	93	98	94	
Empire Ranch	Min.	69	78	69	70	69	62	68	69	62	68	69	68	74	75	68	55	69	67	62	60	64	63	60	64	63	60	64	63	60	64	63	60	64	63	
Hawthorne	Max.	100	97	95	89	93	93	93	93	93	99	98	98	96	94	94	93	92	90	91	90	95	95	95	95	95	95	95	95	95	95	95	95	95	95	
Hawthorne	Min.	70	68	67	67	59	62	59	63	63	63	66	67	65	67	65	60	58	57	55	57	56	59	57	56	59	57	56	59	57	56	59	57	56	59	
Las Vegas	Max.	97	95	91	94	80	81	88	87	84	92	92	98	92	87	96	90	78	92	95	91	84	82	85	80	89	84	80	89	84	80	89	84	80	89	
Las Vegas	Min.	78	70	71	74	70	67	64	70	71	72	75	70	76	70	73	63	62	62	65	80	66	66	66	66	69	71	68	69	71	68	66	66	69	71	
Midas	Max.	99	98	96	92	90	89	88	92	95	99	96	94	95	93	92	94	94	92	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	
Midas	Min.	70	68	65	64	57	62	60	59	64	66	67	67	62	65	64	60	61	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	
Palmetto	Max.	96	93	87	84	84	83	81	86	92	96	96	94	92	93	92	92	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	
Palmetto	Min.	55	55	56	62	41	53	47	48	52	56	55	57	54	57	55	51	49	48	45	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	
Panaca	Max.	100	103	99	96	94	93	97	98	94	98	105	101	100	100	99	97	96	95	90	90	92	92	92	92	92	92	92	92	92	92	92	92	92	92	
Panaca	Min.	60	59	60	57	54	51	54	56	52	58	56	59	56	62	59	52	54	53	49	51	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
St. Thomas	Max.	110	109	105	101	95	96	98	105	108	110	112	108	105	108	109	110	109	111	109																

CLIMATOLOGICAL DATA FOR AUGUST, 1898.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).						Precipitation (inches).						Sky.				Remarks.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest 24 hours.	Total snowfall (in melted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number overcast days.			
NORTHERN SECTION.																					
Austin—1	Lander	6,591	11	70.8	+1.7	92	1	44	6	41	0.56	+0.10	0.51	0	3	9	11	11	SW	M. D. Murphy	
Battle Mountain	Lander	1,511	28	78.4	+3.7	101	11	53	19	41	0	-0.12	0	0	0	25	0	6		†F. A. Limbaugh	
Beowawe	Eureka	1,695	28	77.6	+2.7	101	12	60	24	35	T	-0.12	T	0	0	2	0	29	S	†E. F. Wolyer	
Blaine	Elko			63.4		93	11	29	31	49	0.11		0.11	0	1	11	13	4	SW	E. J. Jones	
Carlin	Elko	4,897	28	69.6	+0.2	100	2	41	22	50	0.50	+0.33	0.25	0	2	11	11	3	SW	†W. C. Owen	
Carson City—1	Ormsby	4,660	19	68.9	+0.9	99	1	37	19	47	0.25	+0.01	0.25	0	1	18	12	1	SW	C. W. Friend	
Carson City (W. B.)—1	Ormsby	1,720	11	70.8	+3.6	100	1	43	19	44	0.18	+0.05	0.18	0	1	19	12	0	W	U. S. Weather Bureau	
Clover Valley	Elko	6,000									0.46		0.25	0	1	23	3	5	SW	A. H. Wiseman	
Crane's Ranch	Elko	5,350	11								0.29	+0.02	0.22	0	2	24	6	1	W	W. T. Crane	
Elko—1	Elko	5,063	28	65.6		100	2	30	22	64	0.50	+0.31	0.50	0	1	20	11	0	SW	C. H. Sproule	
Ely—1	White Pine	6,000	11	69.5	+5.0	95	12	45	5	44	2.85	+1.70	0.60	0	15	3	21	7	N	M. B. Garaghan	
Fenelon	Elko	6,128	11	69.3	-1.4	98	6	50	29	39	0.16	-0.18	0.10	0	2	17	11	3	S	†E. H. Macdonell	
Golconda	Humboldt	4,392	20	74.2	-2.5	91	16	55	31	28	0	-0.05	0	0	0	9	12	10	E	†J. A. Langwith	
Halleck	Elko	5,229	26	69.8	0	107	2	11	30	46	0.04	-0.13	0.04	0	1	14	12	4	W	†J. E. Murray	
Hot Springs	Churchill	4,072	11	79.8	+0.8	104	1	60	21	29	0	-0.02	0	0	0	21	0	10	SW	†W. A. Rich	
Humboldt	Humboldt	4,236	27	73.1	-0.2	97	1	50	30	31	0	-0.03	0	0	0	20	6	5	S	†J. J. Cullen	
Lewers' Ranch—1	Washoe	5,200	11	70.4	+0.9	100	1	39	30	43	0.27	-0.09	0.20	0	3	20	11	0	SW	E. Lewers	
Lovelock	Humboldt	3,977	7	76.0	-2.5	107	12	45	30	39	0	0	0	0	0	21	7	3	N	G. B. Stebbins	
Martin's Ranch—1	Douglas	4,830		67.3		94	1	38	31	44	0.54		0.21	0	3	27	4	0	S	J. H. Martin	
McGill—1	White Pine	5,200		67.1		95	10	38	1	52	1.11		0.80	0	6	17	10	4	S	Mrs. W. N. McGill	
Mill City	Humboldt	4,225	10	74.3	-0.1	105	11	56	31	35	0	-0.12	0	0	0	18	0	13	W	†Walter Davis	
Monitor Mill—1	White Pine	6,400		69.3		95	12	42	30	46	1.11		0.65	0	4	4	18	9	SW	Jas. B. Orr	
Osceola—1	White Pine	6,500		78.4		95	12	60	30	28	1.13			0	3	20	0	11	SW	Jas. H. Marriott	
Palisade	Eureka	4,821	17	75.9	+2.9	98	7	54	31	36	0.50	+0.29	0.35	0	2	16	15	0	W	J. A. Ferraro	
Reno—1	Washoe	4,484	28	69.4	+1.0	98	1	40	30	43	0.16	+0.10	0.08	0	2	16	15	0	W	J. E. Stanaway	
Ruby Valley	Elko	6,000	4								1.23	+0.66	0.75	0	4	12	7	12	SW	Miss Jennie Williams	
St. Clair—1	Churchill	4,000	7	73.8	+5.4	97	1	45	30	41	0	-0.22	0	0	0	20	11	0	W	C. Allen	
Spring Valley	Lyon			75.4		104	1	50	31	40	0.07		0.05	0	0	13	13	5	W	Lewis L. Burt	
Tecoma	Elko	4,812	21	74.6	-1.4	111	2	55	31	45	0	-0.14	0	0	0	16	11	4	W	†W. T. Onyon	
Toano	Elko	5,975	29	70.9	-1.6	98	12	50	22	34	0.30	+0.10	0.30	0	1	15	6	10	SW	†W. S. Spencer	
Tuscarora—1	Elko	6,490	8			92	2				0.07	-0.48	0.07	0	1	26	2	3	N	J. D. Geiselman	
Verdi	Washoe	4,895	9	73.0	+4.9	108	4	48	30	60	0.10	-0.10	0.10	0	1	28	3	0	SW	†E. L. King	
Wadsworth	Washoe	4,077	27	80.0	+2.2	104	4	50	30	40	0.07	-0.03	0.05	0	2	28	3	0		†G. A. Macpherson	
Wells—1	Elko	5,628	28	69.6	-2.2	98	11	32	30	51	0.48	+0.26	0.24	0	4	18	0	13	W	A. Fisher	
Winnemucca—1	Humboldt	4,432	20	72.6	+2.0	100	10	41	20	47	0.09	-0.02	0.09	0	1	20	11	0	W	C. A. Rogers	
SOUTHERN SECTION.																					
Bunkerville	Lincoln										0.30		0.20	0	2	8	13	10	SW	Miss Emily J. Lee	
Candelaria—1	Esmeralda	5,783	9	76.0	+2.0	99	1	50	30	38	0.98	+0.63	0.85	0	2	30	0	1	W	R. F. Laffoon	
Darrough Ranch	Nye	4,500									1.81		1.74	0	2	25	4	2	S	Mrs. J. T. Darrough	
Empire Ranch—1	Nye	6,900	6	79.6	+3.5	105	12	48	30	44	0.13	-0.50	0.10	0	3	7	4	20	S	Miss Bessie Potts	
Hawthorne—1	Esmeralda	4,539	11	76.6	+0.5	100	1	51	31	38	T	-0.45	T	0	0	15	12	4	NW	C. P. Mengel	
Keyser's Springs	Nye	5,400																		Eugene Lock	
a Las Vegas—1	Lincoln	2,074		78.3		98	12	59	31	28	0.49		0.40	0	1	19	9	2	W	E. B. Kiel	
Midas—1	Nye	7,200																		Geo. Nicholl	
Palmetto—1	Esmeralda	6,500	9	70.4	+5.0	96	1	41	18	46	0.95	-0.55	0.55	0	3	23	5	3	SE	Wm. Oothout	
Panaca	Lincoln			74.1		105	10	46	25	47	2.33		1.60	0	5	3	25	3	S	A. H. Wedge	
St. Thomas—1	Lincoln	1,600		89.2		112	11	67	7	34	0		0	0	0	20	6	5	S	Geo. B. Whitney	
San Antonio—1	Nye	4,500																		Mrs. Eli Baker	
Silver Peak—1	Esmeralda	4,382		79.8		105	1	55	31	40	0.40		0.33	0	2	24	6	1	S	Chas. G. Fogg	
Sodaville—1	Nye	4,665		80.0		105	1	53	20	46	0.14		0.14	0	1	12	6	13	N	T. G. Watterson	
Tybo—1	Nye	6,500	7			100	1	50	29		0.75	+0.12	0.50	0	5	20	8	3	S	Jas. B. Gilmore	
Means or Extremes					73.6	+1.4	112	11	29	31	64	0.45	+0.04	1.74	0	2	18	8	5	SW	Means or Extremes

Letters of alphabet indicate number of days record missing, as "a" one day, "e" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m., and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. †Agent S. P. R. Co. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

Thunderstorms—Austin, 3, 14; Beowawe, 26, 30; Blaine, 4, 15; Carson City, 2, 4, 5, 6, 11, 12, 13; Candelaria, 13, 25; Darrough Ranch, 28; Empire Ranch, 6, 7, 14, 16; Ely, 4, 5, 6, 15, 26, 28; Fenelon, 15, 26, 29; Las Vegas, 5, 6, 19, 23; McGill, 19; Monitor Mill, 3, 4, 15; Panaca, 26; Palmetto, 13, 28, 29; Reno, 4, 6, 7, 12; Silver Peak, 24, 28; Tybo, 3, 5, 6, 12, 13, 14, 15, 26, 27, 28; Wells, 26, 29; Silver City, 1, 2, 28.

High Winds—Blaine, 3, 4; Candelaria, 13; Carson City, 2, 4, 5, 6, 7, 11, 12,

18, 20, 26, 29, 31; Clover Valley, 3, 18, 20; Empire Ranch, 19, 20, 21; Elko, 3; Lovelock, 2, 26; Osceola, 5, 19; Toano, 13; Wells, 29.

Hail—Ely, 15; Las Vegas, 5; Monitor Mill, 7; Panaca, 26.

Light Frost—Crane's Ranch, 15, 18, 19, 21, 22, 31; Martin's Ranch, 17, 29, 30, 31; Reno, 30; Wells, 30.

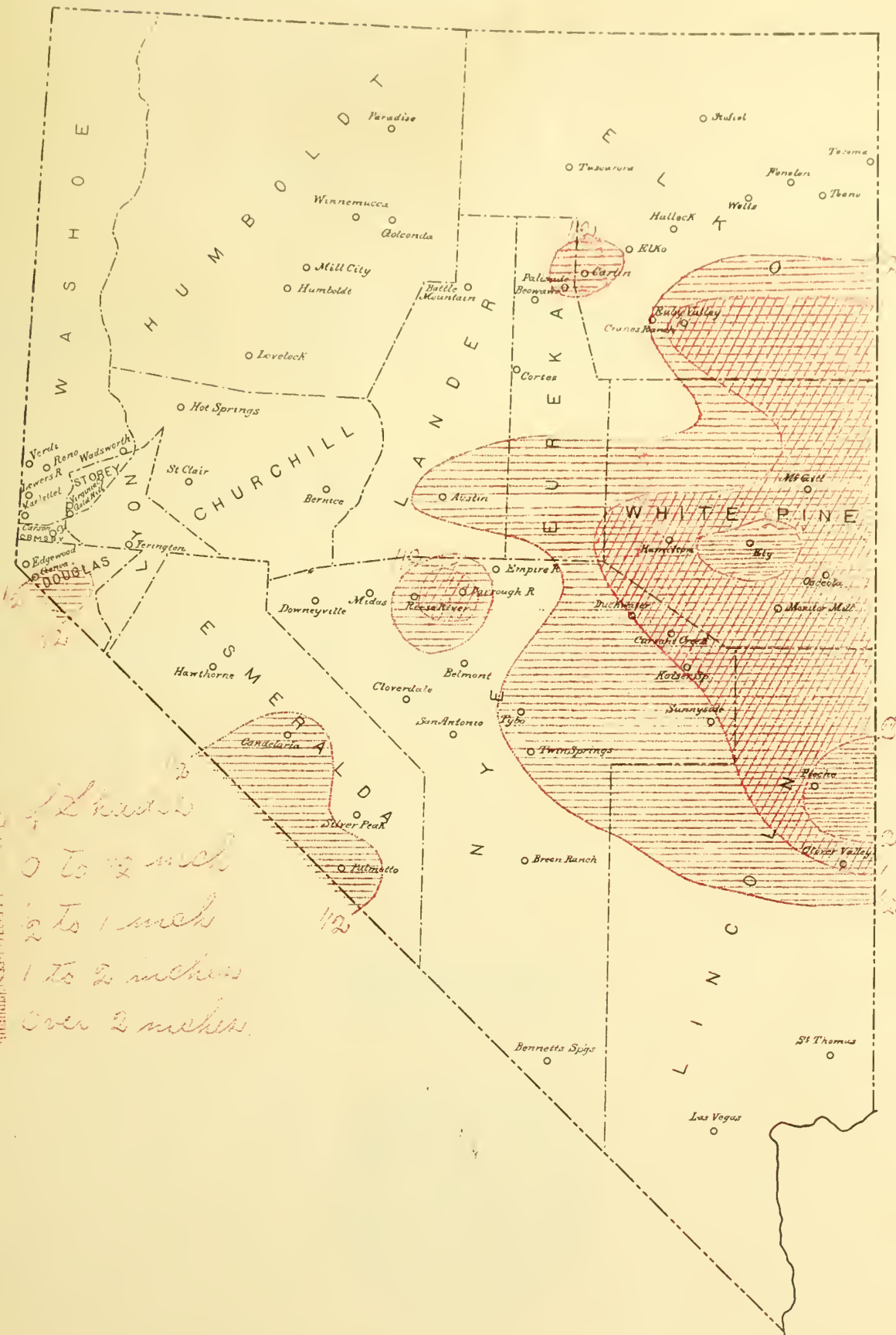
Blaine—Late report for July: Mean temperature, 64.0; highest, 91, on 7th, 10th, 27th; lowest, 30, on 1st, 2d; total precipitation, 0.21 of an inch, all of which occurred on 12th.

CLIMATE AND CROPS: NEVADA SECTION.

AUGUST, 1898.

[illegible]

TOTAL PRECIPITATION FOR AUGUST, 1898.



CARSON CITY, NEVADA:

STATE PRINTING OFFICE, -  - J. G. MCCARTHY, SUPT.

1898

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UNNE

U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR JANUARY, 1899.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.


UNDER DIRECTION OF

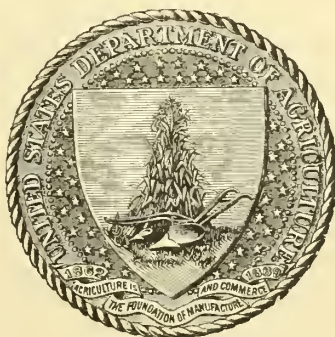
WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

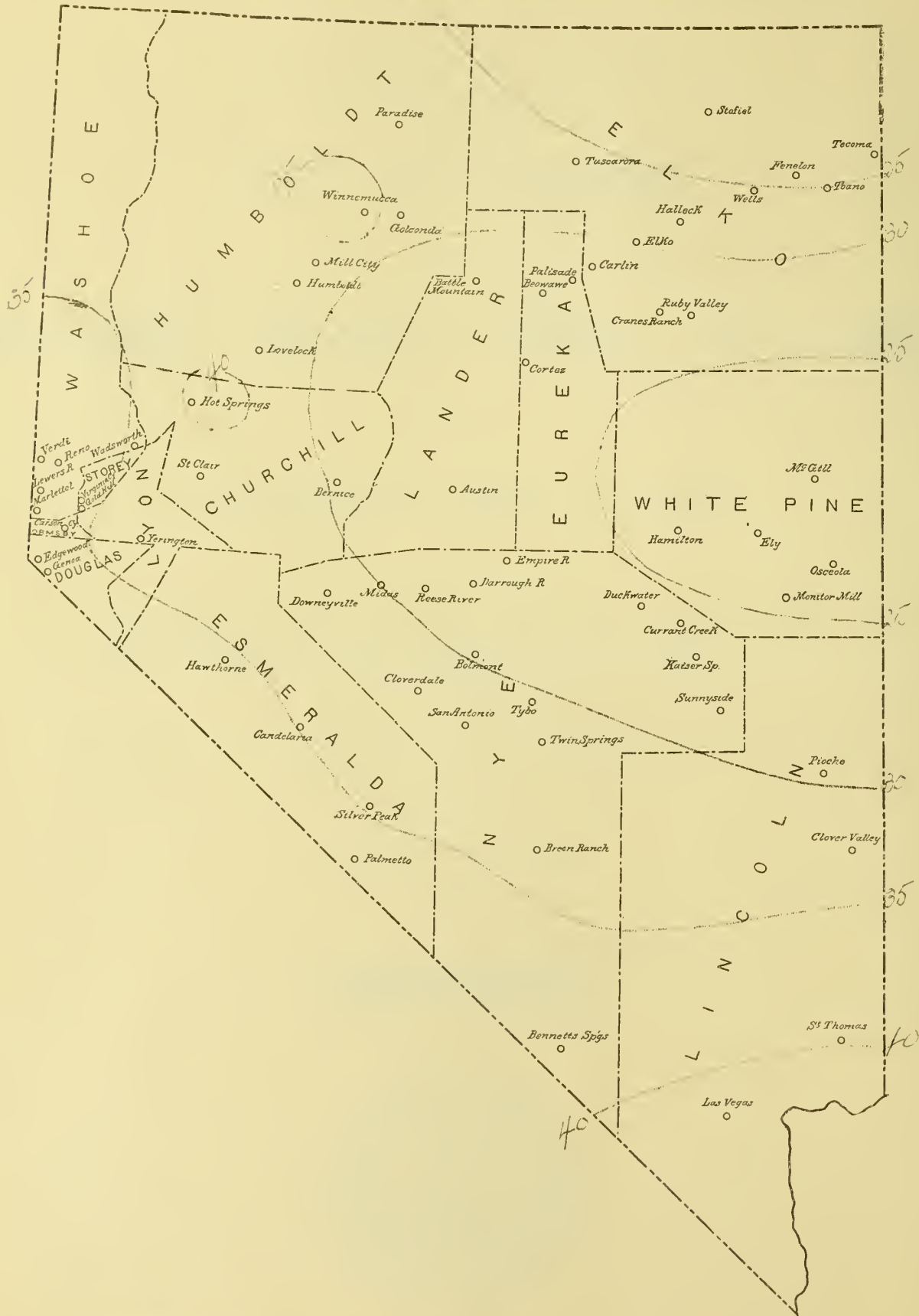
BY

J. H. SMITH, Observer, Weather Bureau,


CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR JANUARY, 1899.



U. S. DEPARTMENT OF AGRICULTURE
CLIMATE AND CROP SERVICE
 OF THE
WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Observer, Weather Bureau,
 CARSON CITY, NEVADA.

VOL. XIII.

CARSON CITY, NEVADA

No. 1.

SUMMARY OF WEATHER CONDITIONS.

The month opened with unusually high wind and heavy snow throughout the northern portion of the State. The first half of the month was generally stormy, with temperature departures ranging from 1 to 20 degrees below normal. The light precipitation, high temperatures and absence of general storms were the most notable deviations from normal conditions during the last half of the month. High winds prevailed in various parts of the State on the 30th and 31st, causing some damage to trees, smokestacks and frail dwellings. At Winnemucca the wind reached an extreme velocity of 90 miles per hour from the southwest, and at Carson City 62 miles per hour from the same direction. In the southern portion of the State plowing was in progress at the close of the month.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the month, reduced to sea level, was 30.21 inches.

The record at the Carson City and Winnemucca Weather Bureau offices was as follows:

CARSON CITY—Mean, 30.21; highest, 30.55, on the 23d; lowest, 29.45, on the 10th; absolute range, 1.10 inches.

WINNEMUCCA—Mean, 30.22; highest, 30.60, on the 23d; lowest, 29.44, on the 31st; absolute range, 1.10 inches.

Temperature—Degrees Fahrenheit.

The monthly mean, 31.8 degrees, was five degrees warmer than the average January.

By sections the mean was: Northern, 31.0 degrees; southern, 34.3 degrees.

The highest monthly mean was 41.4 degrees, at Hot Springs.

The lowest monthly mean was 20.5 degrees, at Tusearora.

The highest temperature recorded during the month was 65 degrees, at Las Vegas on the 28th.

The lowest temperature recorded during the month was 12 degrees below zero, at Monitor Mill on the 13th.

The absolute range of temperature for the State was 77 degrees.

The greatest daily range was 46 degrees, at Palmetto.

Precipitation—Inches and Hundredths.

The average for the State, 1.20 inches, was about .07 of an inch below normal.

By sections the average was: Northern, 1.38 inches; southern, 0.79 inches.

The greatest monthly amount recorded was 4.36 inches, at Verdi.

The least monthly amount recorded was a trace, at Battle Mountain and Silver Peak.

The greatest amount in any twenty four consecutive hours was 3.00 inches, at Verdi on the 10th.

The average depth of snowfall for the State was 12 inches; greatest depth of snowfall, 48.2 inches, at Verdi; least, a trace, at Battle Mountain and Silver Peak.

Wind and Weather.

Westerly winds prevailed during the month.

Following is the record of wind movement during the month at stations named: Weather Bureau Station, Carson City—Total movement, 4,541 miles; maximum velocity, 60 miles per hour, from the southwest, on the 1st; average hourly velocity, 6.1 miles. Winnemucca—Total movement, 7,896 miles; maximum velocity, 72 miles per hour, from the southwest, on the 31st. Carson Observatory—Total movement, 3,264 miles; maximum velocity, 52 miles per hour, from the southwest, on the 1st.

The average number of clear days was 11; partly cloudy, 7; cloudy, 13.

Precipitation to the amount of 0.01 inch or more occurred on six days.

OBSERVERS' REMARKS.

PANACA—A very warm and pleasant month, in striking contrast to January of last year.

A. H. WEDGE.

BLAINE—Chinook winds on the 15th. On the 30th high winds, nearly a hurricane all day, traveling at the rate of about 60 miles per hour. No snow on the ground during the last ten days of the month.

E. J. JONES.

CLOVER VALLEY—Very unusual weather for January—thawing during the day and freezing nights since the 15th. High winds on the 31st doing some damage; wind very unsteady and changeable. Snow about all gone in the valley.

A. H. WISEMAN.

SILVER PEAK—Heavy gale from the south on the 8th. Pogonip on the 8th—ice crystals fell to the depth of an inch; pogonip still over marsh on the 9th. Sleet storm on the 15th—ground covered with light coating of ice.

CHAS. G. FOGG.

WINNEMUCCA—Wind storm of the 31st very severe—an extreme velocity of 90 miles per hour at 3:07 P. M., 75th meridian time. Several trees and a few small shanties were blown down. On the 1st, between 4 and 4:30 P. M., it snowed very hard. In the canyons of the higher mountain ranges there is considerable snow which is packed in some places in depths ranging from 6 to 15 feet. The headwaters of the Humboldt and Little Humboldt rivers will have an abundance of water during the trying months of 1899.

G. B. ACKERMAN.

LATE NOVEMBER REPORT.

Report received too late for publication in December bulletin:

CANDELARIA—Mean temperature, 35.4; maximum, 68 on the 28th; minimum, 4 above zero on the 9th; total precipitation, 0.28 inches; number of clear days, 25; cloudy days, 6; total snowfall, 2.8 inches.

MISSING REPORTS.

Reports for this month are missing from the following stations: Austin, Carlin, Elko, Humboldt, Lovelock, McGill, Mill City, Osceola, Empire Ranch, Midas, St. Thomas and San Antonio.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JANUARY, 1899.

Stations.	Day of Month.																															Total.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
NORTHERN SECTION.																																	
Austin	Max.																																
Blaine	Min.	37	34	25	26	32	38	40	41	25	35	35	30	30	38	45	42	43	38	36	44	47	48	35	40	45	50	48	45	44	45	38.9	
Carson City	Max.	15	26	15	15	15	17	29	21	1	9	25	1	4	8	8	33	20	28	21	28	27	18	5	19	25	26	23	28	32	27	19.3	
Carson City (W. B.)	Min.	29	47	33	35	31	29	45	39	41	43	44	33	38	44	56	54	56	41	48	56	63	47	47	52	57	56	60	58	59	54	47.4	
Elko	Max.	48	33	33	32	29	46	44	40	40	46	36	37	39	45	56	58	44	48	56	62	47	47	50	58	56	59	57	50	56	54	47.5	
Ely	Min.	29	28	25	6	-3	14	27	25	13	31	23	15	11	26	39	42	27	28	26	30	28	30	19	25	25	25	26	28	27	24.2		
Lewers' Ranch	Max.	34	32	25	27	30	29	39	30	36	37	32	31	32	35	37	42	41	42	38	42	43	38	43	43	45	45	46	45	46	44	37.7	
Martin's Ranch	Min.	22	18	-10	5	8	7	21	-2	15	19	9	-8	2	10	25	19	10	25	20	17	25	-0	14	22	23	22	21	25	27	21	14.8	
Monitor Mill	Max.	48	41	37	30	29	45	45	40	45	45	43	35	39	49	57	56	52	45	52	58	54	44	49	53	54	53	55	56	55	54	47.2	
McGill	Min.	29	28	23	4	-5	9	30	24	14	33	26	10	29	38	40	29	27	27	31	28	31	20	34	37	43	45	45	46	45	46	37.9	
Reno	Max.	32	29	26	32	38	38	29	37	35	38	28	31	33	38	47	40	44	37	39	44	31	34	37	43	45	45	46	45	46	45	15.2	
St. Clair	Min.	45	34	32	32	26	37	35	37	38	35	31	40	41	52	46	41	42	49	31	40	40	40	55	40	54	50	38	55	54	55	41.5	
Tuscarora	Max.	30	27	20	12	2	17	30	25	18	32	23	17	15	28	41	38	30	19	32	30	25	20	24	25	24	24	26	24	25	28	24.4	
Wells	Min.	32	43	41	36	36	36	38	38	36	41	37	36	33	42	54	55	53	54	40	45	51	43	41	46	52	55	54	55	58	58	43.6	
Winnemucca	Max.	25	28	27	29	22	24	24	25	28	29	31	25	27	25	32	31	25	25	24	30	25	27	14	18	24	19	24	26	22	26	23.5	
Winnemucca	Min.	-4	-0	5	8	3	10	7	9	12	15	18	0	4	6	12	10	9	5	0	4	7	6	9	10	10	29	28	31	32	33	24	12.0
Winnemucca	Max.	34	32	26	26	25	38	37	34	28	39	33	27	28	32	42	40	43	40	31	45	44	28	29	34	43	44	45	45	45	47	36.3	
Winnemucca	Min.	16	15	14	15	14	20	18	10	11	16	1	16	8	21	21	29	18	23	22	29	19	1	22	28	30	31	30	32	30	20	19.6	
Winnemucca	Max.	49	42	32	32	33	40	37	36	33	38	38	38	38	47	48	50	41	44	47	50	40	40	48	50	53	53	53	52	51	55	42.8	
Winnemucca	Min.	20	29	16	16	17	19	29	29	12	24	28	5	3	20	30	38	34	34	28	34	33	27	21	23	30	27	26	38	28	32	25.5	
SOUTHERN SECTION.																																	
Candelaria	Max.	37	47	40	38	42	40	38	43	38	32	33	37	26	46	43	58	60	46	54	60	62	50	50	50	54	56	61	60	61	56	64	47.8
Empire Ranch	Min.	14	24	17	10	12	19	22	22	14	15	17	9	9	10	20	23	26	26	20	29	30	30	20	25	30	30	34	30	29	27	22.4	
Hawthorne	Max.	54	54	37	37	40	43	41	38	41	40	37	36	34	38	44	51	44	49	50	56	48	50	49	52	54	53	55	54	56	62	46.7	
Las Vegas	Min.	20	29	25	14	16	22	28	29	18	16	16	7	18	24	28	29	30	29	31	31	34	20	25	28	29	30	29	29	27	27	24.9	
Las Vegas	Max.	40	47	42	42	30	38	49	48	43	41	46	46	41	42	42	43	50	54	54	58	50	55	39	55	49	63	55	65	63	64	48.7	
Midas	Min.	17	28	28	21	20	20	29	37	24	27	34	35	28	27	36	26	32	36	35	37	34	31	26	37	41	48	40	42	46	38	31.5	
Palmetto	Max.	33	43	40	38	38	43	44	35	37	28	34	34	33	38	46	52	50	50	50	63	46	45	45	54	56	60	58	61	58	50	45.5	
Panaca	Min.	15	21	10	-2	-4	8	16	22	2	23	20	14	-0	10	15	20	20	18	22	22	17	10	13	26	20	21	22	15	20	15	15.2	
St. Thomas	Max.	53	53	44	48	50	41	52	42	43	42	43	33	33	33	37	39	45	45	52	53	45	42	45	55	56	59	61	61	58	56	47.7	
St. Thomas	Min.	12	11	8	9	-2	10	21	26	6	16	27	18	0	1	17	21	12	11	15	17	20	15	11	14	18	25	23	18	19	18	14.5	
San Antonio																																	
Silver Peak	Min.	39	45	43	40	41	40	37	41	40	42	40	45	36	38	46	51	45	51	52	54	58	51	45	54	60	64	63	61	64	60	48.7	
Sodaville	Max.	2	21	12	1	3	12	23	8	9	23	19	21	9	14	25	19	19	20	23	21	24	32	12	15	31	24	24	24	25	24	31	18.4
Sodaville	Min.	48	44	38	42	47	45	44	38	31	32	38	36	28	32	40	43	54	53	52	52	55	54	48	48	54	55	58	58	61	59	63	46.8
Tybo	Max.	24	13	12	12	10	16	19	24	20	18	13	8	1	14	18	20	21	26	28	30	35	34	22	26	30	29	32	26	25	21	23	21.0
Tybo	Min.	28	32	30	32	25	36	34	31	27	27	30	32	25	25	20	41	38	40	39	38	43	38	39	38	44	45	44	45	46	48	49	35.8
San Antonio																																	
Silver Peak	Min.	39	45	43	40	41	40	37	41	40	42	40	45	36	38	46	51	45	51	52	54	58	51	45	54	60	64	63	61	64	60	48.7	
Sodaville	Max.	2	21	12	1	3	12	23	8	9	23	19	21	9	14	25	19	19	20	23	21	24	32	12	15	31	24	24	24	25	24	31	18.4
Sodaville	Min.	48	44	38	42	47	45	44	38	31	32	38	36	28	32	40	43	54	53	52	52	55	54	48	48	54	55	58	58	61	59	63	46.8
Tybo	Max.	24	13	12	12	10	16	19	24	20	18	13	8	1	14	18	20	21	26	28	30	35	34	22	26	30	29	32	26	25	21	23	21.0
Tybo	Min.	28	32	30	32	25	36	34	31	27	27	30	32	25	25	20	41	38	40	39	38	43	38	39	38	44	45	44	45	46	48	49	35.8
San Antonio																																	
Silver Peak	Min.	39	45	43	40	41	40	37	41	40	42	40	45	36	38	46	51	45	51	52	54	58	51	45	54	60	64	63	61	64	60	48.7	
Sodaville	Max.	2	21	12	1	3	12	23	8	9	23	19	21	9	14	25	19	19	20	23	21	24	32	12	15	31	24	24	24	25	24	31	18.4
Sodaville	Min.	48	44	38	42	47	45	44	38	31	32	38	36	28	32	40	43	54	53	52	52	55	54	48	48	54	55	58	58	61	59	63	46.8
Tybo	Max.	24	13	12	12	10	16	19	24	20	18	13	8	1	14	18	20	21	26	28	30	35	34	22	26	30	29	32	26	25	21	23	21.0
Tybo	Min.	28	32	30	32	25	36	34	31	27	27																						

CLIMATOLOGICAL DATA FOR JANUARY, 1899.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (inches).					Sky.			Prevailing direction of wind.	Observer.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.		
NORTHERN SECTION.																				
Austin—1	Lander	6,594	11																	M. D. Murphy
Battle Mountain	Lander	4,511	28	28.0	+0.6	47	21	12	1	23	T	-0.92	T		21	0	10	NE		†F. A. Limbaugh
Beowawe	Eureka	4,635	28	29.1	+3.4	58	29	2	13	30	0.60	-0.25	0.20	6.0	6	1	0	30	S	†E. F. Wolver
Blaine	Elko	5,350		29.1		48	27	1	9	37	0.75		0.25	5.0	6	4	7	20	NW	†E. J. Jones
Carlin	Elko	4,897	28																	†W. C. Owen
Carson City—1	Ormsby	4,660	19	35.1	+4.1	63	21	-6	5	36	2.21	-0.35	0.94	25.6	8	9	14	8	S	C. W. Friend
Carson City (W. B.)—1	Ormsby	4,720	11	35.8	+5.2	62	21	-3	5	34	1.94	-0.62	1.14	23.7	9	7	15	9	SW	U. S. Weather Bureau
Clover Valley	Elko	6,000									2.14		0.82	8.0	6	7	10	14	W	A. H. Wiseman
Crane's Ranch	Elko	5,350	11								0.69	0.69	0.30		6	9	9	13	W	W. T. Crane
Elko—1	Elko	5,063	28																	C. H. Sproule
Ely—1	White Pine	6,000	11	26.2	+4.1	46	30	-10	3	43	2.05	+0.92	0.50	20.5	8	3	12	16	S	M. B. Garaghan
Fenelon	Elko	6,128	11	25.0	+4.6	45	17	-0	13	27	1.61	+0.31	0.45	18.0	9	9	0	22	W	†F. H. Macdonell
Golconda	Humboldt	4,392	20	30.0	-0.1	52	31	8	20	35	2.25	+1.63	1.50	22.5	5	1	6	24	SW	†J. A. Langwith
Halleck	Elko	5,229	26	27.0	+5.4	50	31	-10	13	38	0.63	-0.38	0.20	6.3	8	1	11	19	S	†J. E. Murray
Hot Springs	Churchill	4,072	11	41.4	+14.2	62	23	11	5	42	0.20	0.39	0.20	2.0	1	17	0	14	NW	†H. A. Powers
Humboldt	Humboldt	4,236	27																	†J. J. Cullen
Lewers' Ranch—1	Washoe	5,200	14	36.8	+5.6	61	21	5	5	37	2.41	-1.77	0.88	22.2	9	11	13	7	SW	E. Lewers
Lovelock	Humboldt	3,977	7																	G. B. Stebbins
Martin's Ranch—1	Douglas	4,830		35.4		58	21	-5	5		0.78		0.65	1.0	3	17	6	8	SW	J. H. Martin
McGill—1	White Pine	5,200																		Mrs. W. N. McGill
Mill City	Humboldt	4,225	10																	†Walter Davis
Monitor Mill—1	White Pine	6,400		26.6		48	21	-12	13	43	1.88		0.50	18.0	5	13	0	18	N	Jas. B. Orr
Osceola—1	White Pine	6,500																		Jas. H. Marriott
Palisade	Eureka	4,821	17	30.9		53	25	-1	13	23					17	2	12	SW		J. A. Ferraro
Reno—1	Washoe	4,484	28	33.0	+3.1	55	24	2	5	31	1.12	-0.30	0.30		6	15	6	10	W	T. J. Lawrence
South Fork	Elko		4								1.82		0.68	22.5	12	6	6	19	SW	Miss Jennie Williams
St. Clair—1	Churchill	4,000	7	33.6	+6.4	58	31	10	9	33	0.30	+1.29	0.20	3.0	3	8	16	7	N	C. Allen
Tecoma	Elko	4,812	21	25.9	+5.2	50	31	-2	13	30	0.40	-0.16	0.20	4.0	3	4	6	21	W	†W. T. Onyon
Toano	Elko	5,975	29	27.5	+6.4	46	20	-0	12	30	1.90	+1.03	0.40	16.0	10	4	6	21	W	†W. S. Spencer
Tuscarora—1	Elko	6,400	8	20.5		41	30	-4	1	29						18	13	0	W	J. D. Geiselman
Verdi	Washoe	4,895	9	38.6	+7.9	56	15	10	4	30	4.36	-0.22	3.00	48.2	7	11	0	20	SW	†E. L. King
Wadsworth	Washoe	4,077	27	34.9	+2.9	62	27	16	16	15	0.30	-0.48	0.10	2.0	4	20	2	9	W	†G. A. Macpherson
Wells—1	Elko	5,628	28	28.1	+6.5	47	31	1	17	32	1.33		0.52	6.3	6	12		19	SW	A. Fisher
Winnemucca—1	Humboldt	4,432	20	34.0	+6.8	55	31	3	13	29	1.32	+0.24	0.44	11.0	11	5	8	18	SW	Geo. B. Ackerman
SOUTHERN SECTION.																				
Bunkerville	Lincoln										0.65		0.65		1	15	8	8		Miss Emily J. Lee
Candelaria—1	Esmeralda	5,783	9	35.1	+4.3	64	31	9	13		1.30	+0.52	0.60	13.0	4	20	0	11	W	R. F. Laffoon
Darrrough Ranch	Nye	4,500									1.31		0.40	10.0	4	7	12	12	S	Mrs. J. T. Darrrough
Empire Ranch—1	Nye	6,990	6																	Miss Bessie Potts
Hawthorne—1	Esmeralda	4,569	11	35.8	+2.2	62	31	7	13	35	0.39	-0.20	0.12	5.0	6	5	11	15	NW	C. P. Mengel
Las Vegas—1	Lincoln	2,074	4	40.1	+2.1	65	28	17	1	29	0.40	-0.38	0.30		2	21	6	4	W	E. B. Kiel
Midas—1	Nye	7,200																		Geo. Nicholl
Palmetto—1	Esmeralda	6,500	9	30.4	+4.9	63	21	-4	5	46	1.20	-0.60	0.60	12.0	3	24	5	2	NW	Wm. Oothout
Panaca	Lincoln			31.1		61	28	-2	5	44	0.37		0.15	0	3	16	8	7	S	A. H. Wedge
St. Thomas—1	Lincoln	1,600																		Geo. B. Whitney
San Antonio—1	Nye	4,500																		Mrs. Eli Baker
Silver Peak—1	Esmeralda	4,382	3	33.6	+8.6	64	26	1	4	40	T	-0.24	T		16	9	6	N		Chas. G. Fogg
Sodaville—1	Nye	4,665		33.9		63	31	1	13	40	0.49		0.24	8.0	3	14	7	10	N	T. G. Watterson
Tybo—1	Nye	6,500	7			49	31				1.75	-0.76	0.40	8.0	6	12	16	3	S	Jas. B. Gilmore
Means or Extremes				31.8	+5.0	65	28	-12	13	34	1.20	-1.15		12.0	6	11	7	13	W	Means or Extremes

Letters of alphabet indicate number of days record missing, as "a" one day, "e" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. †Agent S. P. R. R. Co. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

Chinook—Tybo, 15, 16; Blaine, 15.

Fogs (Dense)—Beowawe, 18, 19, 20, 21; Sodaville, 19.

High Winds—Tybo, 31; Blaine, 30; Lewers' Ranch, 31; Clover Valley, 31; Hawthorne, 1, 31; Martin's Ranch, 1; Beowawe, 31; Carson City, 1, 3, 10, 11, 31; Winnemucca, 31; Fenelon, on several days during the month.

Lunar Halos—Silver Peak, 20, 29; Toano, 28, 29, 30; Carson City, 4.

Solar Halos—Carson City, 23.

DAILY PRECIPITATION FOR JANUARY, 1899.

Stations.	Day of Month.																															Total.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
NORTHERN SECTION.																																	
Austin																																	T
Battle Mountain						.10	.10			.10				*	.20																	.05	.60
Beowawe						.10	.10	T			T			T	.15					.25	.05			T								.05	.75
Blaine	T																																
Carlin																																	
Carson City	.43	.94	.10			T	.07	T	T	.46	.10	.09		T			.01														.01	2.21	
Carson City (W. B.)	.06	1.14	.12				.10	.01		.33	.08	.07		T	.60	.82	.16		.03													1.94	
Clover Valley						.20	.25			.11					.15	.05	.08		.16													2.14	
Crane's Ranch				.08	.03															.15	.15											.65	
Elko																																	
Fly			.50				.30		.20	.30					.20	.30	.10	.15														2.05	
Fenelon		.10	.05	.05		.10	.10			.29				.20	.45	.05	.20	.20												.10		1.64	
Golconda						.10	.10								.05	.05				.15												.45	
Halleck						.05	.05	.05		.10	.05				.20	.10			.02													.62	
Hot Springs		.20																														.20	
Humboldt													.08																				
Lewers' Ranch	.20	.88	.17			.26			.46	.12	.12			T			.12															2.41	
Lovelock																																	
McGill																																	
Mill City																																	
Martin's Ranch																																	
Monitor Mill		.50					.40			.60	.03	.10		T	.47		.21																.78
Oseola										.30																							1.88
Palisade																																	
Reno	.25	T	T	T	T	.07	T	.25	T	T	.20	T	T	.30		.05	T																1.12
South Fork		.05	.04		.04	.14	.17			.05	.01			.30	.68	T	.05	.25	T	.04				T									1.82
St. Clair							.12	.13								.20			.05														.30
Tecoma							.10				.10				.40	.30	.30																.40
Toano		.10	.10			.10	.10			.20	.20																						1.90
Tuscarora																																	
Tuscarora																																	
Verdi	.11	3.00					.25			.30	.60	.05	.05				T																4.36
Wadsworth				.05			.10		.05						.52		.10		*	.18													.30
Wells		*	.18			.25			*	.20		*		*	.01	.23	T	T	.08	T	.06												1.33
Winnemucca	T	.44	.08	.05		.04	.28	.02		.03																							1.32
SOUTHERN SECTION.																																	
Bunkerville																																	.65
Candelaria			.10						T	.65		.60																					1.30
Darrough Ranch								.40		.20																							1.31
Empire Ranch							.38	.40		.20										.33													
Hawthorne																																	
Hawthorne	T						.05	.12		.03	.09	.09					.01																.39
Las Vegas																																	.40
Nidas										.10	.30																						
Palmetto																																	
Panacea	T						.20			.60	.40																						1.20
Panacea	T									T	.10	.12			.15	T																	.37
St. Thomas																																	
St. Thomas																																	
San Antonio																																	
Silver Peak								T		T	T				T																		T
Sodaville																																	
Sodaville	.10						.24			.15																							.49
Tybo			.21				.18	.40		.35	.30	.31																					1.75
Tybo																																	

T indicates trace. *Precipitation included in that of following day.

TOTAL PRECIPITATION FOR JANUARY, 1899.



Scale of Shades.

	<i>1 to 2 inches</i>
	<i>2 to 3 inches</i>
	<i>over 3 inches</i>

CARSON CITY, NEVADA :

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1899

551.05
UNNE

U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR MARCH, 1899.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

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UNDER DIRECTION OF

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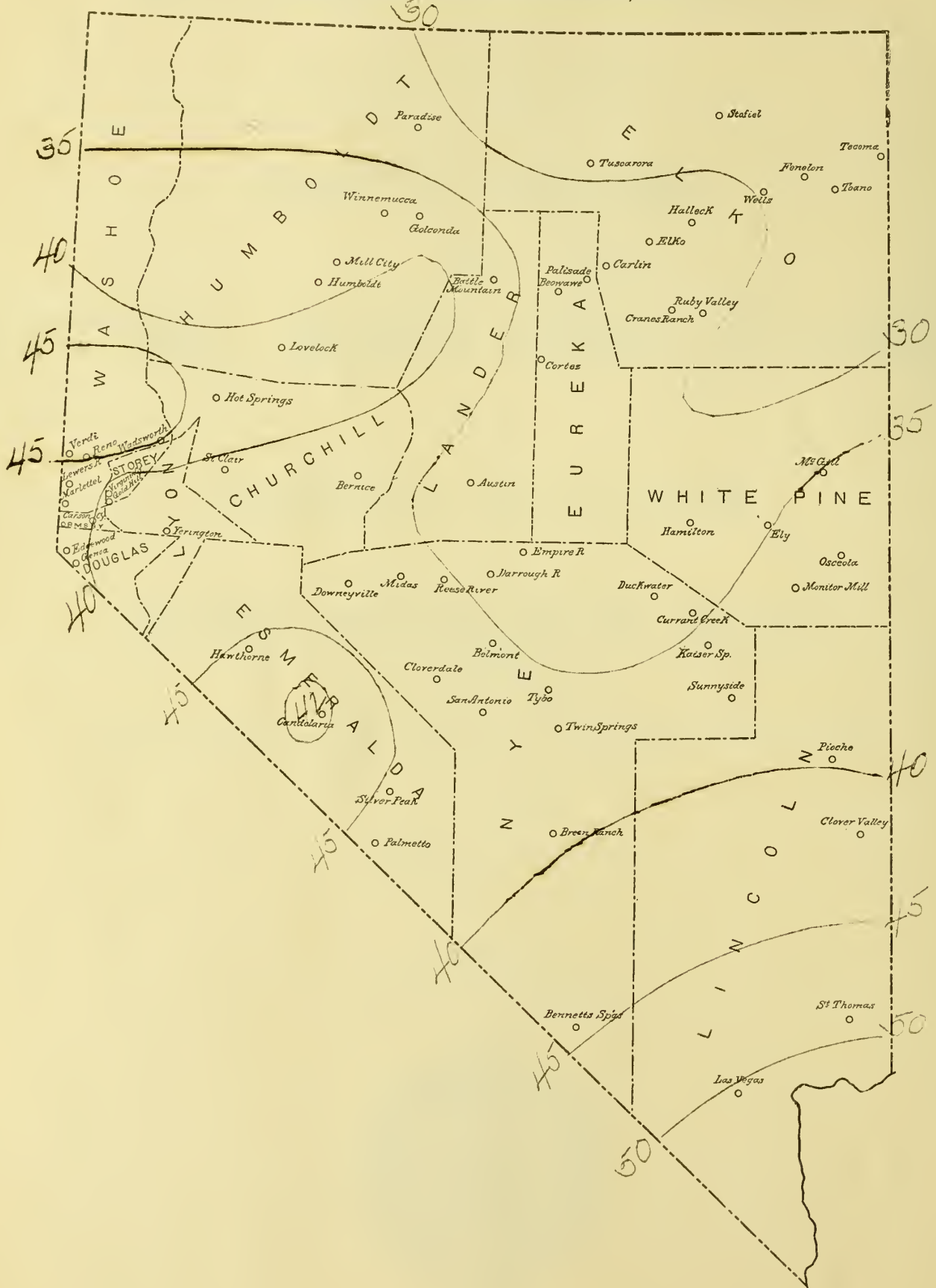
BY

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CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR MARCH, 1899.



U. S. DEPARTMENT OF AGRICULTURE
CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

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RAINFALL IN NEVADA.

Nevada and Western Utah, with Southern Idaho and Southeastern Oregon, constitute the Great Basin, which has a general altitude somewhat less than 6,000 feet. It consists of many narrow and short ranges separated by wide plains. The mountains are generally low, with only an occasional peak that attains any considerable height. They are mostly sharp in outline, jagged, black and bare, extending north and south.

The entire arid country east of the Sierra Nevada range, except the plateau country of Arizona, possesses features so similar that it can all be described together. It has been supposed that the country inclosed by these two mountain ranges, except perhaps the extreme northern portion, possesses the characteristics of a country having equally distributed rains throughout the year instead of a periodic occurrence, but this generally accepted idea is in error. It is true the summers are not altogether rainless, as showers visit the basin district and become more pronounced in the mountains. Considering the sources of the water of the Colorado and Columbia rivers, it is evident that they come from the mountains and not from the plateau valleys through which they flow. The great basin of Utah and Nevada has insufficient water falling within it to require a channel to carry it to the ocean, but it is absorbed by the sands and saline lakes. The actual amount of precipitation that occurs on the mountains is even impossible to closely approximate, but it is plainly considerable.

The occurrence of increased rainfall from south to north is attributed, in the main, to nearness to the field of cyclonic action. These cyclonic areas seldom, if ever, pass below the forty-first parallel of north latitude in Eastern Nevada, but north of which they are infrequent in a lesser degree. Having either formed over the basins or areas, whose progress the Cascade mountains have failed to arrest, the mountain wall of the Sierra Nevada and Cascades should, if everywhere equally elevated, offer an equally potent influence to deplete the moisture from the ocean winds. The summit ridge, however, not being of equal elevation, more moisture enters Nevada from some points of its western boundary than others, but the effect of a moisture stream through such a gap as exists in Southern California is not apparent in rainfall, and the reason is, that it does not pass again over any elevated mountains, or seldom, if ever, comes within the influence of storm areas.

During the summer there is manifest in the mountains of New Mexico and Arizona, from the heavy rains of this period, the existence of much moisture, carried, undoubtedly, from the Pacific ocean over some mountain depression. In a consideration of this kind the matter of vapor depth must not be overlooked.

A mountain wall like the Sierra Nevada and Cascade ranges holds back perhaps one-half the moisture, because the vapor decreases upward, and at least one-half of the whole is found below 6,000 feet.

The area between the Rocky and Sierra ranges is comparatively a dry one, adapted principally to grazing. In the level valleys of running streams irrigation will produce the most prodigal yield of crops. This entire area, however, is shown to be much more favored with rain than was supposed a few years ago, when it was approximately called the Great American Desert.

The pioneers into this country little imagined that its dry looking mountains and plains would soon become the feeding places of millions of cattle, and the valleys could be transformed by water into places delightful to every sense.

The peculiar grasses of Nevada do not appear to require more than an occasional light shower and the melting snow that has fallen during the winter season. Nevada is rough and elevated, a series of basins within an arid surface with salt lakes and salt, sandy plains in every part that in the heat have the mirage sea appearance.

None of the stations recording rain in this state are at great elevated points, as the railroad lines, along which the records are taken, always seek the valleys and low places.

The season of greater precipitation in this State is during the winter months, which occurs largely in the form of snow in the mountains. The same condition that is prevalent in Nevada is applicable to Utah and Idaho, more so the former than the latter, on account of its more southerly location, thereby being out of the track of storms in their passage eastward.—Silver State.

CLIMATOLOGY OF THE MONTH.**Atmospheric Pressure—Inches and Hundredths.**

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the Carson Observatory and the Weather Bureau Stations at Carson City and Winnemucca, was 30.91.

The highest pressure was 30.52, at Carson City on the 14th, and the lowest, 29.66, at Winnemucca on the 16th; absolute range, 0.86.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the records of thirty-one stations, was 38.6 degrees, or about normal. By sections the mean was: Northern, 37.2 degrees; southern, 42.5 degrees.

The highest monthly mean was 47.8 degrees, at Las Vegas, Lincoln county, and the lowest monthly mean 29.3 degrees, at Tuscarora, Elko county.

The highest temperature recorded during the month was 79 degrees, at Panaca, Lincoln county, on the 24th, and the lowest 4 degrees above zero, at Empire Ranch, Nye county, on the 13th; absolute range of temperature for the State, 75 degrees. Greatest daily range of temperature, 53 degrees, at Silver Peak on the 6th and at Panaca on the 7th.

Precipitation—Inches and Hundredths.

The precipitation for the State averaged 1.83, which is 0.76 of an inch above normal.

By sections the average was: Northern, 2.40; southern, 0.32.

The greatest monthly amount recorded was 8.51, at Lewers' Ranch, Washoe county, and the least monthly amount, none, at Las Vegas, Lincoln county.

The greatest amount recorded in any twenty-four consecutive hours was 3.00 inches, at Halleck, Elko county, on the 29th.

The average depth of snowfall for the State was 5.7 inches; greatest depth recorded, 15 inches, at Fenelon, Elko county.

Wind and Weather.

The prevailing direction of the wind was from the southwest. Following is a record of the wind movement during the month at the stations named:

Carson City Weather Bureau Station—Total movement, 8,549 miles; maximum velocity, 70 miles per hour, from the west, on the 1st; average hourly velocity, 11.5 miles.

Carson Observatory—Total movement, 5,764 miles; maximum velocity, 56 miles per hour, from the southwest, on the 1st.

Winnemucca Weather Bureau Station—Total movement, 8,552 miles; maximum velocity, 45 miles per hour, from the southwest, on the 7th.

The average number of clear days was 9; partly cloudy, 8; cloudy, 14; days on which .01 or more precipitation fell, 4.

WEATHER AND CROP SUMMARY FOR MARCH.

Throughout the northern portion of the State the weather during March was moderately cold and windy, with frequent rain and snowstorms which retarded the beginning of farming operations to a considerable extent. In the other sections the conditions were more favorable and springlike, permitting of plowing and seeding without much interruption the greater part of the month. During the stormy period, from the 22d to 25th, there was an immense amount of snow deposited in the

Continued on page 8.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MARCH, 1899.

Stations.	Day of Month.																															Monthly Means.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
NORTHERN SECTION.																																	
Austin	Max.																																
Blaine	Min.	48	45	34	40	47	50	50	34	40	43	40	36	25	47	40	38	36	34	48	40	38	48										41.1
Blaine	Max.	36	30	10	18	22	21	33	25	15	25	13	17	12	13	30	26	23	22	21	28	27	22	22	33								22.7
Blaine	Min.	36	30	10	18	22	21	33	25	15	25	13	17	12	13	30	26	23	22	21	28	27	22	22	33								51.7
Carson City	Max.	52	46	58	64	73	67	57	42	45	50	53	43	49	45	43	58	52	51	48	45	50	51	45	47	58	46	58	55	52	28	29.2	
Carson City (W. R.)	Min.	40	39	28	20	20	22	35	28	26	21	19	18	9	32	35	31	28	28	32	36	32	42	43	47	45	55	51	45	56	52	50.5	
Carson City (W. R.)	Max.	54	55	50	57	62	71	66	55	39	42	48	51	40	48	44	41	43	56	52	50	47	51	51	47	45	55	51	45	56	52	50.5	
Carson City (W. R.)	Min.	40	38	29	21	23	26	38	34	27	21	19	14	12	32	35	32	28	24	29	33	37	31	38	42	38	29	24	36	32	28	29.7	
Elko	Max.																																
Elko	Min.																																
Ely	Max.	49	43	41	48	50	58	61	60	35	38	42	43	53	50	42	43	44	51	48	43	50	60	64	51	49	35	48	43	50	50	47.9	
Ely	Min.	30	17	16	19	24	25	32	27	18	10	15	15	13	29	32	16	21	18	27	28	22	22	34	32	34	24	11	23	25	17	20	23
Ely	Min.	30	17	16	19	24	25	32	27	18	10	15	15	13	29	32	16	21	18	27	28	22	22	34	32	34	24	11	23	25	17	20	23
Lewers' Ranch	Max.	47	45	47	57	62	69	65	56	41	47	50	50	41	44	45	42	43	54	55	47	44	42	47	46	49	46	54	55	56	56	50.1	
Lewers' Ranch	Min.	36	35	23	23	26	30	36	23	14	19	18	8	27	34	32	25	23	28	32	30	38	37	35	33	23	35	28	25	30	30	28.0	
Lewers' Ranch	Max.	50	54	50	61	70	68	62	55	44	48	55	40	55	49	50	47	56	60	57	40	50	57	55	53	52	55	57	50	56	57	53.8	
Martin's Ranch	Min.	40	38	28	29	23	22	37	43	24	18	19	7	31	38	33	27	24	30	32	30	34	44	45	45	27	25	35	30	37	37	30.5	
Martin's Ranch	Max.	48	45	41	48	50	58	61	60	41	40	42	44	50	48	40	46	44	51	52	44	50	55	58	50	48	43	45	42	48	45	47.7	
Monitor Mill	Max.	40	38	28	29	23	22	37	43	24	18	19	7	31	38	33	27	24	30	32	30	34	44	45	45	27	25	35	30	37	37	30.5	
Monitor Mill	Min.	48	45	41	48	50	58	61	60	41	40	42	44	50	48	40	46	44	51	52	44	50	55	58	50	48	43	45	42	48	45	47.7	
Monitor Mill	Max.	40	38	28	29	23	22	37	43	24	18	19	7	31	38	33	27	24	30	32	30	34	44	45	45	27	25	35	30	37	37	30.5	
McGill	Max.	53	46	38	44	46	48	45	45	32	36	40	45	32	58	52	51	21	30	34	30	26	25	30	24	20	21	24	26	23	25	21	23.8
McGill	Min.	32	19	17	16	20	28	34	27	19	8	10	13	16	18	17	18	38	39	48	47	44	43	44	49	39	32	54	54	39	53	50	46.9
Reno	Max.	49	44	45	55	64	70	70	51	36	44	47	48	38	45	45	38	30	28	25	26	30	36	40	42	34	28	21	37	28	24	30	29.8
Reno	Min.	38	42	26	21	24	28	50	35	25	19	24	19	16	28	38	30	28	25	26	30	36	32	44	42	34	28	21	37	28	24	30	29.8
St. Clair	Max.	58	61	56	47	53	60	70	72	65	44	45	50	61	42	53	56	45	45	54	59	58	55	43	58	62	47	46	52	57	51	54	54.3
St. Clair	Min.	41	37	22	15	19	23	34	32	32	19	14	17	18	31	36	34	28	26	26	29	37	33	32	37	37	26	27	31	32	29	30	28.5
Tuscarora	Max.	38	38	27	40	50	57	58	60	43	27	38	35	32	34	42	48	38	36	45	36	38	32	40	35	38	30	35	45	34	40	45	40.1
Tuscarora	Min.	30	28	10	11	12	20	19	20	15	10	11	8	9	24	22	19	20	12	26	20	12	25	30	32	15	6	17	24	20	25	18.5	
Wells	Max.	45	42	33	39	46	54	61	58	35	34	40	38	38	37	58	43	41	51	45	38	42	51	54	51	35	38	51	43	44	53	44.2	
Wells	Min.	30	17	21	21	18	24	25	26	16	11	9	16	29	30	36	26	17	29	23	24	30	33	34	31	20	17	23	28	24	19	31	22.6
Winnemucca	Max.	54	48	42	50	56	67	66	62	36	40	42	42	34	36	50	48	33	48	50	47	48	36	51	51	47	42	49	51	43	50	54	47.5
Winnemucca	Min.	41	33	16	24	21	25	34	29	26	20	15	14	24	33	34	26	22	26	34	34	34	31	34	44	37	26	23	30	31	28	28.0	
SOUTHERN SECTION.																																	
Candelaria	Max.	61	62	53	56	63	70	73	75	45	43	54	57	50	58	44	40	54	55	56	54	63	64	65	65	56	48	56	47	58	56	56.4	
Candelaria	Min.	38	31	28	27	36	34	38	20	18	17	20	16	19	23	32	13	23	30	29	38	40	42	40	40	40	26	20	32	19	20	30	28.0
Empire Ranch	Max.	50	52	41	35	41	51	61	60	58	35	30	40	46	30	44	49	43	42	44	49	47	48	46	58	62	48	39	48	53	39	45	46.4
Empire Ranch	Min.	33	28	20	10	12	19	30	28	25	10	8	4	10	15	20	24	25	24	27	24	26	31	32	37	24	20	28	30	20	22	21.8	
Hawthorne	Max.	67	61	49	54	60	75	73	71	55	41	48	59	47	56	60	49	45	54	56	60	57	52	69	65	55	45	55	60	54	55	56	56.9
Hawthorne	Min.	41	42	31	25	25	32	43	39	26	19	25	22	30	39	37	24	26	33	32	32	40	38	43	43	35	33	26	35	29	31	32	32.6
Las Vegas	Max.	55	53	70	53	52	63	68	68	46	49	48	53	52	50	59	50	46	53	62	57	61	68	78	73	60	57	52	66	55	61	57	57.9
Las Vegas	Min.	35	32	38	42	32	33	35	51	35	38	32	25	44	38	40	33	26	33	33	47	35	38	41	46	53	46	39	31	41	43	32	37.4
Midas	Max.																																
Midas	Min.																																
Palmetto	Max.	64	62	47	55	63	70	67	65	41	40	53	54	47	53	47	43	56	55	56	60	60	63	66	61	48	56	47	45	55	61	55.2	
Palmetto	Min.	27	28	17	9	15	24	25	30	18	17	7	15	9	27	30	8	14	25	24	28	24	27	34	37	22	25	15	20	25	25	21.6	
Panacea	Max.	67	65	56	58	64	10	73	72	61	45	50	55	33	10	53	67	51	57	63	58	70	71	74	79	59	62	57	60	64	64	61.3	
Panacea	Min.	30	25	12	21	18	20	24	23	18	10	12	12	12	26	33	27	16	20	29	21	24	34	40	40	40	38	33	24	32	25	23	24.9
St. Thomas	Max.																																
St. Thomas	Min.																																

CLIMATOLOGICAL DATA FOR MARCH, 1899.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (Inches).				Sky.				Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (inches).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.		Prevailing direction of wind.
NORTHERN SECTION.																				
Austin—1	Lander	6,591	11																M. D. Murphy	
Battle Mountain	Lander	1,511	28	42.0	+1.1	61	27	27	9	—	2.21	+1.16	0.30	1.0	11	13	—	18	NE	†F. A. Limbaugh
Beowawe	Eureka	4,695	28																†E. F. Wolver	
Blaine—1	Elko	5,350	—	31.9	—	50	6	10	3	30	2.25	—	0.40	13.5	7	5	6	12	SW	—E. J. Jones
Carlin	Elko	1,897	28	30.8	-4.7	54	19	18	1	—	1.90	+1.00	0.50	12.0	4	1	11	19	W	—†W. C. Owen
Carson City—1	Ormsby	4,660	19	40.4	+0.2	73	6	9	13	51	2.29	+0.74	1.05	3.6	9	10	15	6	SW	—C. W. Friend
Carson City (W. B.)—1	Ormsby	1,720	11	40.1	-0.1	71	6	12	13	45	1.67	+0.31	0.91	3.9	8	6	8	17	SW	—U. S. Weather Bureau
Clover Valley	Elko	6,000	—																A. H. Wiseman	
Crane's Ranch	Elko	5,350	11								2.71	+1.10	0.50	—	13	10	6	15	W	—W. T. Crane
Elko—1	Elko	5,063	28																C. H. Sproule	
Ely—1	White Pine	6,000	11	35.2	+3.1	61	21	10	10	33	1.90	-0.13	0.60	8.0	10	7	6	18	S	—M. B. Garaghan
Fenelon	Elko	6,128	11	30.9	-3.7	55	7	14	13	—	0.98	-0.53	0.23	15.0	9	6	1	24	W	—†F. H. Macdonell
Golconda	Humboldt	4,392	20	38.6	-3.9	56	22	12	3	—	1.06	+0.17	0.40	7.0	5	5	13	13	W	—†J. A. Langwith
Halleck	Elko	5,229	26	33.0	-2.9	63	7	7	3	—	5.00	+4.29	3.00	12.8	11	3	12	16	SW	—†Geo. A. Toney
Hot Springs	Churchill	4,072	11	46.5	+5.5	65	2	11	8	—					0	9	—	22	NW	—†H. A. Powers
Humboldt	Humboldt	4,236	27																	—†J. J. Cullen
Lee	Elko										3.19	—	0.92	14.5	16	7	8	16	S	—Miss Jennie Williams
Lewers' Ranch—1	Washoe	5,290	11	39.9	-0.4	69	6	8	13	36	8.51	+5.46	2.80	7.1	16	7	18	6	SW	—E. Lewers
Lovelock	Humboldt	3,977	7	38.1	—	55	18	23	11	—					0	17	8	6	S	—†J. W. Walters
Martin's Ranch—1	Douglas	4,830	—	42.2	—	70	6	7	13	48	2.12	—	0.71	2.5	6	20	4	7	SW	—J. H. Martin
McGill—1	White Pine	5,200	—	35.3	—	65	8	8	10	40	1.55	—	0.80	—	6	7	2	19	S	—Mrs. W. N. McGill
Mill City	Humboldt	4,225	10																	Jas. H. Marriott
Monitor Mill—1	White Pine	6,400	—	35.8	—	61	7	10	4	38	1.78	—	0.53	1.8	8	7	6	18	N	—Jas. B. Orr
Osceola—1	White Pine	6,500	—																	†Walter Davis
Palisade	Eureka	4,821	17	35.9	—	61	23	22	23	—	2.78	+2.07	0.77	5.5	8	10	6	15	SW	—†J. A. Ferraro
Reno—1	Washoe	4,484	28	46.9	+2.8	70	6	16	13	42	1.03	+0.38	0.32	5.0	6	4	16	11	W	—T. J. Lawrence
St. Clair—1	Churchill	4,000	7	41.4	+5.7	72	8	14	11	43	0.36	-1.16	0.16	1.0	6	9	7	15	W	—C. Allen
Tecoma	Elko	4,812	21	33.7	-4.5	65	8	20	11	—	0.25	-0.17	0.10	2.5	3	6	12	13	W	—†W. T. Onyon
Toano	Elko	5,975	29								1.80	+0.93	0.60	13.0	8	4	14	13	SW	—†W. S. Spencer
Tuscarora—1	Elko	6,400	8	29.3	-3.5	60	8	8	13	40	1.22	-1.09	0.87	—	7	9	12	10	SW	—J. D. Geiselman
Verdi	Washoe	4,895	9	45.5	+7.8	72	4	14	10	—	4.60	+2.99	1.35	6.5	9	3	3	25	SW	—†E. L. King
Wadsworth	Washoe	4,077	27	38.6	-6.4	62	30	20	9	—	0.70	-0.39	0.35	1.5	4	18	5	8	W	—†G. A. Macpherson
Wells—1	Elko	5,628	28	33.4	-2.8	61	7	9	12	36	3.43	-2.36	0.80	—	12	7	5	19	SW	—A. Fisher
Winnemucca—1	Humboldt	4,432	20	38.0	-1.9	67	6	14	13	41	3.04	+2.14	0.71	—	16	6	7	18	SW	—U. S. Weather Bureau
SOUTHERN SECTION.																				
Bunkerville	Lincoln																			Miss Emily J. Lee
Candelaria—1	Esmeralda	5,783	9	42.2	+2.1	75	8	13	17	39	0.65	+0.37	0.50	1.5	2	10	9	12	W	—R. F. Laffoon
Darrrough Ranch	Nye	4,500	—																	Mrs. J. T. Darrrough
Empire Ranch—1	Nye	6,990	6	34.1	+3.7	62	25	4	13	42	0.58	-0.25	0.10	11.0	8	3	7	21	N	—Miss Bessie Potts
Hawthorne—1	Esmeralda	4,569	11	44.8	+4.2	75	6	19	11	43	0.01	+0.34	0.01	1.0	1	8	6	17	NW	—C. P. Mengel
Las Vegas—1	Lincoln	2,074	4	47.8	+1.4	78	23	24	14	37	0.00	-0.29	0.00	0.0	0	14	17	0	W	—E. B. Kiel
Midas—1	Nye	7,200	—																	Geo. Nichol
Palmetto—1	Esmeralda	6,500	9	38.4	+2.9	70	6	7	11	48	0.30	-2.20	0.30	3.0	1	25	4	2	N	—Wm. Oothout
Panaca	Lincoln			43.1	—	79	24	10	11	53	0.59	—	0.34	0.0	3	14	10	7	S	—A. H. Wedge
St. Thomas—1	Lincoln	1,900	—																	Geo. B. Whitney
San Antonio—1	Nye	4,500	—																	Mrs. Eli Baker
Silver Peak—1	Esmeralda	4,382	3	45.0	+3.4	78	7	14	12	53	0.00	—			—	18	9	4	N	—Chas. G. Fogg
Sodaville—1	Nye	4,665	—	44.8	—	78	7	15	11	52	0.17	—	0.12	1.5	2	8	13	10	N	—T. G. Watterson
Tybo—1	Nye	6,500	7								0.59	-1.92	0.50	0.0	3	8	22	1	N	—Jas. B. Gilmore
Means or Extremes				38.6	+0.1	79	—	4	—	53	1.83	+0.76	—	5.7	7	9	8	14	SW	—Means or Extremes

Letters of alphabet indicate number of days record missing, as "a" one day, "e" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. †Agent S. P. R. R. Co. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

High Winds—Palmetto, 9, 13, 15, 25; Silver Peak, 13, 15; Hawthorne, 12; Tybo, 12; Empire Ranch, 2, 7, 16, 21, 28, 31; Las Vegas, 9; Carson City, 1, 2, 7, 8, 12, 13, 14, 20, 21, 23, 24, 28.

Thunderstorms—Palmetto, 1; Tybo, 25.

Sleet—Blaine, 14; Empire Ranch, 16; Crane's Ranch, 4; Panaca, 17, 20.

Hail—Blaine, 21; Silver Peak, 29; Hawthorne, 16; Empire Ranch, 9, 16, 29.

Solar Halos—Carson, 5, 30.

Lunar Halos—Carson, 18, 22, 27, 31.

Duststorms—Las Vegas, 9.

DAILY PRECIPITATION FOR MARCH, 1899.

Stations.	Day of Month.																															Total.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
NORTHERN SECTION.																																	
Austin	*	*	*	.78			*	.30		*	.08			T				*	*	.70			.10						*	.25	2.21		
Battle Mountain																																2.25	
Beowawe	T	T	.40					.10			.05	.30	.10	T	.60	.40	.60	.40				.30				.50						1.90	
Blaine																																	
Carlin																																	
Carson City	T	T	T					.08				.04	T	.09	.17	T			.01	T	1.05	.39	.35	.11				T	T		2.29		
Carson City (W. B.)	T	T						.04				.02	T	.04	.15			T	T	.76	.28	.18	.20								1.67		
Clover Valley																																	
Crane's Ranch	T	.01						.15				.08	.15	.10		.43	.05		.40	T	.04	.40	.15	.50				.25			2.74		
Elko																																	
Ely								.05				.05	.05	.10		.10	.05		.05		.10	.05	.60	.40	.15				.35			1.90	
Fenelon												.05	.05	.10		.10		.05	.05		.15	.23					.20					0.98	
Golconda			.20					.10				.40	.06									.30	.30	.25	.25	.20						1.06	
Halleck			.35					.02				.10	.08	.05		.10	.60		T			.25	.25	.20								5.00	
Hot Springs																																	
Humboldt																																	
Lee	.02	.15						.06	T	T		.07	.37	.06	.04	.27	.05		T	.17	.15	.92	.09	.65	.07			T	.35			3.49	
Lewers' Ranch	.05	T	.04					.13				.18	.05	.91	.17			T	.09	.22	.87	.280	1.50	1.35				.05	.07			8.51	
Lovelock																																	
McGill															.15	.15						.03	.80	.10						.32		1.55	
Mill City																																	
Martin's Ranch								.06				.18				.65					.30	.20	.71									2.12	
Monitor Mill								.06							.12	.06				.11	.08	.53	.40					.42				1.78	
Oreola												.15	.20	.38								.72	.77	.20	.16				.20			2.78	
Palisade																																	
Reno	T	T			T			.25	T		T	T	T	T	T	.32		T	.19	.03	.15	.09						T	T	T		1.03	
South Fork																	.03		.03		.16	.07	.03	.03	.04							0.36	
St. Clair															.10		T			.05		.25	.05	T				.10				0.25	
Tecoma									T	T		.10	T	.20		.20	.10		T		.60	.10	T					.40				1.80	
Toano	.10																																
Tuscarora	T	T							T			.42	.43	.05	.45	.25	T		T	T	T	.67	.20	T				.15	.17			1.22	
Verdi								.30			.05	.05	.05					.05	T	.10	1.00	1.05	1.35					T				4.60	
Wadsworth	T										*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		0.70
Wells	.23										.12				.15	.30		*	.36	.51	.31	.22	.35					.80				3.43	
Winnemucca	.01	.23						.15	T	T		.20	.52	.19	.02	.46		.01	.03			.17	.71	.16	.04				.08	.06		3.04	
SOUTHERN SECTION.																																	
Bunkerville									T							.15						.50							T			0.65	
Candelaria																																	
Darrough Ranch												.04	T	.07	T			.05	T		.07	T	T	.10	T				.08			0.58	
Empire Ranch			.08								*	.01			T																		0.01
Hawthorne																																	
Las Vegas																																	0.00
Midas																																	
Palmetto	T							T							.30	T													T			0.30	
Panaca								T								.10			.15										T	T		0.59	
St. Thomas																																	
San Antonio																																	
Silver Peak												T				.12					T	T	T	.05								0.00	
Sodaville																																	0.17
Tybo								T	.04							.05														T			0.59

T indicates trace. *Precipitation included in that of following day.

TOTAL PRECIPITATION FOR MARCH, 1899.



mountains, while heavy rains in the valleys soaked the soil to a considerable depth. At the close of the month vegetation was well advanced throughout the eastern, western and southern sections. Alfalfa fields and meadows were looking quite green, fruit trees were generally in bloom, and the ranges were in fair condition.

OBSERVERS' REMARKS.

Martin's Ranch—High winds and cloudy days with rain have charac-

terized the month; and the rancher buckles on his armor with renewed energy, for the reward of his labor is assured. J. H. MARTIN.

Panaca—Heavy rains and snow in mountains during the month, greatly improving the cattle ranges. A. H. WEDGE.

Silver Peak—Gales from north on 11th, 13th and 15th, and from the south on the 25th. Hailstorm of a few minutes' duration on 29th. The month was the warmest known here, and the changes of temperature very rapid. CHARLES G. FOGG.

CARSON CITY, NEVADA:

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1899

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR JUNE, 1899.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU.

BY

J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



This is a detailed map of the state of Nevada, showing its county boundaries and names. The counties depicted are Washoe, Humboldt, Churchill, Lander, Esmeralda, Douglas, Storey, White Pine, and Lincoln. Major cities and towns are marked with dots and labeled, including Reno, Carson City, Elko, and Las Vegas. The map also shows geographical features like the Snake River and various mountain ranges.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL. XIII.

CARSON CITY, NEVADA.

No. 6.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the Carson Observatory, and the Weather Bureau Stations at Carson City and Winnemucca, was 29.96 inches.

The highest pressure, 30.26 inches, was recorded at Carson City, on the 15th, and the lowest, 29.62 inches, at Winnemucca, on the 15th. Absolute range of pressure for the State, 0.64 inches.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the records of thirty-three stations, was 63.7 degrees, or about normal.

By sections the mean was: Northern, 62.1 degrees; southern, 67.5 degrees. The highest monthly mean, 76.6 degrees, was recorded at Silver Peak, Esmeralda county, and the lowest monthly mean, 50.7 degrees, at Carlin, Elko county.

The highest temperature, 103 degrees, was recorded at Palisade, Elko county, on the 23d, and the lowest, 21 degrees above zero, at Wells, Elko county, on the 5th. Absolute range of temperature for the State, 82 degrees. The greatest local daily range of temperature was 59 degrees, at Elko, Elko county, on the 17th, and the least, 6 degrees, at Las Vegas, on the 1st.

Precipitation—Inches and Hundredths.

The precipitation for the State averaged 0.61 of an inch, which is 0.17 of an inch above normal.

By sections the average was: Northern, 0.66; southern, 0.47.

The greatest monthly amount recorded was 2.62 inches, at Palisade, Elko county, and the least monthly amount, none, at several stations.

The greatest amount recorded in any twenty-four consecutive hours was 1.10 inches, at Elko, Elko county, on the 2d.

Wind and Weather.

The prevailing direction of the wind was from the west.

Following is a record of the wind movement during the month at the stations named:

Carson City Weather Bureau Station—Total movement, 5,063 miles; maximum velocity, 36 miles per hour, from the southwest, on the 24th; average hourly velocity, 7.1 miles.

Winnemucca Weather Bureau Station—Total movement, 6,839 miles; maximum velocity, 36 miles per hour, from the northwest, on the 19th.

Carson Observatory—Total movement, 3,076 miles; maximum velocity, 26 miles per hour, from the west, on the 19th.

The average number of clear days was 22; partly cloudy, 4; cloudy, 4; days on which .01 of an inch or more precipitation fell, 2.

OBSERVERS' REMARKS.

MARTIN'S RANCH—The early part of the month was very cool; during the second and third decades warmer weather prevailed and vegetation made rapid growth. Haying was in progress during the last week of the month with unsatisfactory results as to yield. The grain and vegetable crops made good headway, and at the close of the month were looking exceedingly well.

J. H. MARTIN.

PALMETTO—Snow and sleet on the 1st; thunderstorm on 18th and high wind on the 24th.

WM. OOTHOUT, JR.

ELKO—Very warm month; many clear days; some wind; ice first days of the month.

C. H. SPROULE.

TYBO—Thunderstorms on 2d and 17th, and high winds on 12th, 13th, 22d and 23d.

J. B. GILMORE.

TUSCARORA—A very backward season.

J. D. GEISELMAN.

CLOVER VALLEY—Crops of all kinds growing nicely; wild hay will be about an average crop; alfalfa somewhat light. The range is in good condition and stock of all kind is improving.

A. H. WISEMAN.

COMPARATIVE PRECIPITATION AND TEMPERATURE DATA FOR JUNE DURING THE PAST TWELVE YEARS.

Year.	Mean Temperature.	Average precipitation, Inches and hundredths.
1888.....	61.0.....	0.08.....
1889.....	70.0.....	0.22.....
1890.....	61.5.....	0.05.....
1891.....	59.8.....	1.18.....
1892.....	62.8.....	1.06.....
1893.....	63.8.....	0.04.....
1894.....	57.8.....	1.12.....
1895.....	62.9.....	0.13.....
1896.....	68.7.....	0.22.....
1897.....	62.8.....	0.37.....
1898.....	65.0.....	0.19.....
1899.....	63.7.....	0.60.....

REVIEW OF WEATHER AND CROP CONDITIONS DURING JUNE.

Week ending June 5th—The weather conditions during the past week have been generally favorable to crops, except that the cool, unseasonable weather of the first four days retarded growth in most sections of the State. The last three days of the week were much warmer, with good refreshing rains which were of great benefit to the ranges and growing crops. The condition of crops is reported as generally satisfactory, but on account of the abnormally cold weather of the past month growth has been very slow. Wheat, oats and barley are doing fairly well, but are very backward. Alfalfa and native grasses are making slow growth. Potatoes have not made much progress on account of the frequent frosts. Garden truck is advancing slowly.

Week ending June 12th—The week ending June 12th was the warmest so far this season, the temperature averaging about three degrees daily above normal. Frost occurred during the early part of the week in Eureka, Elko and Church-

Continued on page 8.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JUNE, 1899.

Stations.		Day of Month.																													Monthly Means.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		30	31
NORTHERN SECTION.																																	
Austin	Max.																																
Carson City	Min.	60	60	72	78	78	70	78	81	85	87	82	77	70	82	90	92	92	88	79	77	82	84	84	74	66	76	87	86	84	86	79.6	
Carson City	Max.	39	46	43	48	45	40	34	38	40	45	47	53	42	33	39	44	45	49	51	40	44	44	42	44	50	46	40	41	46	43	43.4	
Carson City (W. B.)	Min.	59	57	70	76	76	68	77	80	84	84	82	74	68	80	89	90	91	87	78	74	82	82	83	73	64	73	85	86	82	81	77.9	
Carson City (W. B.)	Max.	34	40	44	51	48	43	38	44	46	51	51	53	43	39	45	50	51	55	57	48	46	52	48	52	50	50	43	46	54	48	47.3	
Elko	Min.	56	58	66	62	58	68	69	61	64	69	69	70	68	74	78	79	93	94	93	80	75	70	84	83	80	76	80	88	89	90	74.2	
Elko	Max.	31	33	31	32	24	29	32	34	32	32	30	26	30	34	36	32	34	33	41	40	40	30	34	40	38	36	37	34	38	41	33.6	
Ely	Min.	48	58	65	74	72	70	71	75	78	83	87	76	66	74	85	92	95	88	87	84	80	75	83	82	88	87	92	91	90	90	79.4	
Ely	Max.	34	40	41	39	32	30	35	35	40	41	45	38	29	35	40	43	50	50	38	40	41	47	45	40	50	45	45	53	55	41.4		
Levers' Ranch	Min.	61	61	69	74	76	67	74	77	83	85	80	75	70	77	88	90	91	90	78	78	80	82	82	75	64	74	85	87	82	84	77.4	
Levers' Ranch	Max.	40	38	40	48	46	34	36	41	46	49	51	44	34	44	49	50	53	53	37	40	41	41	48	46	46	44	46	62	47	47	44.3	
Martin's Ranch	Min.																																
Martin's Ranch	Max.	38	45	40	45	38	35	45	47																								43.4
Monitor Mill	Min.	48	57	65	72	70	71	70	72	74	78	80	77	70	84	89	90	86	87	83	81	74	84	82	81	87	86	90	90	89	89	78.0	
Monitor Mill	Max.	34	41	42	38	36	33	34	36	39	41	43	40	39	36	40	46	50	49	36	40	42	46	44	40	39	48	44	52	54	54	41.3	
McGill	Min.																																
Reno	Max.	65	68	70	72	76	78	75	78	83	88	78	66	79	88	98	91	89	79	77	78	80	86	75	73	76	83	89	85	88	88	79.8	
Reno	Min.	48	48	40	52	47	42	36	44	48	54	58	49	40	45	54	52	54	51	49	44	45	48	48	45	45	45	48	50	45	45	47.4	
St. Clair	Max.	64	63	61	72	78	77	68	75	80	84	89	83	74	77	79	86	92	91	93	88	78	79	81	88	85	79	81	86	91	90	80.5	
St. Clair	Min.	43	47	44	54	52	41	38	43	43	52	58	51	40	39	47	50	61	56	55	44	49	47	51	52	44	52	52	53	53	53	48.6	
Tuscarora	Max.	50	55	65	60	57	60	66	69	70	75	74	65	56	80	84	84	84	81	65	65	77	78	81	70	75	77	82	82	78	78	71.3	
Tuscarora	Min.	37	38	41	39	38	39	34	36	40	44	46	52	37	34	36	42	54	57	48	41	36	43	55	47	46	45	49	52	49	49	43.7	
Wells	Max.	66	70	68	66	68	68	70	70	80	81	80	76	79	80	82	87	94	90	73	75	77	78	87	80	80	85	92	86	87	87	78.9	
Wells	Min.	38	30	34	45	21	28	34	36	34	36	34	34	35	44	46	54	50	30	29	40	40	48	40	38	36	38	38	50	50	50	38.1	
Winnemucca	Max.	56	57	69	70	66	61	71	74	79	85	82	67	66	76	85	92	93	90	86	71	73	77	86	84	71	75	85	89	88	86	77.0	
Winnemucca	Min.	42	44	42	52	47	35	42	45	44	50	51	35	38	41	45	49	54	53	50	42	41	46	48	52	45	46	49	53	51	51	45.6	
SOUTHERN SECTION.																																	
Candelaria	Max.	56	66	74	81	81	68	77	80	85	91	92	83	69	81	93	95	91	92	89	81	87	90	86	77	86	90	93	94	90	90	82.7	
Candelaria	Min.	39	39	40	48	48	40	48	48	50	56	57	54	45	45	51	57	57	60	57	47	50	51	47	47	44	53	54	60	59	59	50.2	
Empire Ranch	Max.	64	60	57	59	69	71	76	100	89	95	85	90	87	85	85	90	92	94	100	96	90	91	92	91	90	94	91	93	91	91	85.7	
Empire Ranch	Min.	32	30	31	34	35	38	30	42	40	60	60	58	59	57	50	64	59	60	63	62	49	50	54	49	47	44	51	52	49	49	49.0	
Hawthorne	Max.	57	55	69	77	78	73	76	80	85	90	94	84	74	80	89	95	92	93	93	82	80	83	90	87	76	83	88	93	95	89	69.4	
Hawthorne	Min.	45	43	48	49	59	46	43	43	50	53	50	58	48	48	50	53	60	58	63	53	54	55	52	55	52	50	54	56	60	56	51.7	
Las Vegas	Max.	62	62	67	72	86	85	78	83	83	95	86	73	75	85	86	90	94	92	82	80	77	85	81	78	82	80	86	95	89	89	81.7	
Las Vegas	Min.	56	50	52	53	58	55	59	57	58	60	59	60	62	54	55	61	59	62	70	66	63	60	59	60	62	51	58	60	63	67	59.0	
Midas	Max.																																
Midas	Min.																																
Palmetto	Max.	42	54	65	78	83	70	80	82	85	88	90	85	70	82	85	91	91	90	88	82	84	85	78	75	81	85	88	90	92	92	80.7	
Palmetto	Min.	36	36	35	38	41	36	34	38	41	42	50	45	46	36	41	41	49	50	40	37	41	46	52	50	41	45	45	60	48	48	42.7	
Panaca	Max.																																
Panaca	Min.																																
St. Thomas	Max.																																
St. Thomas	Min.																																
San Antonio	Max.																																
San Antonio	Min.																																
Silver Peak	Max.	85	80	84	86	88	89	90	90	96	98	99	98	98	99	95	98	92	102	85	95	99	102	100	99	100	98	101	99	98	98	94.9	
Silver Peak	Min.	48	46	50	58	60	62	60	62	60	61	62	60	62	61	60	59	58	60	62	61	52	50	58	60	60	60	61	60	58	61	58.4	
Sodaville	Max.	64	68	71	82	95	90	81	82	90	94	96	86	86	83	94	98	100	98	96	86	88	90	95	90	92	93	96	96	94	90	80.0	
Sodaville	Min.	41	45	46	52	46	46	47	52	54	56	59	56	48	51	56	55	56	54	55	56	54	55	56	53	52	51	58	58	62	62	52.3	
Tybo	Max.	58	57	62	79	79	77	76	83	88	89	86	79	77	85	97	94	87	90	79	78	83	87	86	83	85	86	92	93	93	91	82.5	
Tybo	Min.	35	38	38	45	44	45	42	45	50	50	60	55	59	40	56	53	58	50	53	50	45	49	50	52	53	47	51	57	54</			

CLIMATOLOGICAL DATA FOR JUNE, 1899.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (inches).					Sky.				Prevailing direction of wind.	Observer.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.			
NORTHERN SECTION.																					
Austin—1	Lander	6,591	11																	M. D. Murphy	
Battle Mountain	Lander	4,511	28	65.3	—2.0	98	29	48	2		1.25	+0.71	0.75	0	2	25		5	NE	Agent So. Pacific Co.	
Beowawe	Eureka	4,685	28	65.2	+3.6	91	17	45	12					0	0	26		4	S	Agent So. Pacific Co.	
Carlin	Elko	4,897	28	50.7	—14.0	84	29	30	20		0.25	—0.13	0.15	0	2	24	6	0	SW	Agent So. Pacific Co.	
Carson City—1	Ormsby	1,660	19	61.5	+1.4	92	16	33	14	48	0.39		0.39	0	1	26	2	2	SW	C. W. Friend	
Carson City (W. B.)—1	Ormsby	4,720	11	62.6	+2.5	91	17	34	1	41	0.07		0.07	0	1	22	7	1	W	U. S. Weather Bureau	
Clover Valley	Elko	6,000									0.65		0.58		2	20	8	2	SW	A. H. Wiseman	
Crane's Ranch	Elko	5,350	11								0.75		0.65	0	2	26	2	2	W	W. T. Crane	
Elko—1	Elko	5,063	28	53.9	—11.1	95	17	21	6	59	2.00	+1.55	1.10	0	2	21	9	0	NE	C. H. Sproule	
Ely—1	White Pine	6,000	11	60.4	+1.2	95	17	29	13	49	0.95	+0.58	0.65	0	3	14	12	4	S	M. B. Garaghan	
Fenelon	Elko	6,128	11	54.6	—10.2	85	29	32	1		1.00	+0.72	0.64	0	2	20	7	3	W	Agent So. Pacific Co.	
Golconda	Humboldt	4,392	20	62.8	—7.1	98	26	38	2		1.28	+0.69	0.48	0	4	23	0	7	SW	Agent So. Pacific Co.	
Halleck	Elko	5,229	26	62.5	+6.5	102	28	42	1		T	—0.46	T	0	0	10	14	6	SW	Agent So. Pacific Co.	
Hot Springs	Churchill	4,072	11	70.0	—0.8	99	18	40	3						30	0	0	0	NW	Agent So. Pacific Co.	
Humboldt	Humboldt	4,236	27	65.8	—0.5	92	16	45	2		0.43	+0.08	0.35	0	2	22	6	2	S	Agent So. Pacific Co.	
Lee	Elko										0.04		0.04	0	1	22	7	1	SW	Miss Jennie Williams	
Lewers' Ranch—1	Washoe	5,200	11	62.2	+1.6	91	17	34	6	44	0.06	—0.39	0.06	0	1	25	5	0	SW	E. Lewers	
Lovelock	Humboldt	3,977	7	66.6	—3.4	94	17	48	1		0.28	+0.28	0.20	0	2	28	0	2	N	Agent So. Pacific Co.	
Martin's Ranch—1	Douglas	4,830																		J. H. Martin	
McGill—1	White Pine	5,200																		Mrs. W. N. McGill	
Mill City	Humboldt	4,225	10	65.5	—3.1	102	16	45	2		0.05	—0.07	0.05	0	1	17	6	7	N	Agent So. Pacific Co.	
Monitor Mill—1	White Pine	6,400		59.6		90	17	33	6	49	0.95		0.65	0	3	12	14	4	S	Jas. B. Orr	
Osceola—1	White Pine	6,500																			
Palisade	Eureka	4,821	17	69.2	+3.1	103	23	45	1		2.62	+2.11	1.00	0	3	23	3	4	NE	Agent So. Pacific Co.	
Reno—1	Washoe	4,484	28	63.6	—0.8	93	16	36	7	49	0.40	—0.21	0.40	0	1	24	2	4	W	T. J. Lawrence	
St. Clair—1	Churchill	4,000	7	64.6	+3.6	93	18	38	7	44	0.21	—0.10	0.12	0	3	23	4	3	W	C. Allen	
Tecoma	Elko	4,812	21	61.6	—6.0	100	29	40	6		0.10	—0.47	0.10	0	1	22	0	8	W	Agent So. Pacific Co.	
Toano	Elko	5,975	29																	Agent So. Pacific Co.	
Tuscarora—1	Elko	6,400	8	57.5	—1.9	84	16	34	7	44	1.25	+0.71	0.70	0	2	27	1	2	W	J. D. Geiselman	
Verdi	Washoe	4,895	9	73.0	+11.1	100	16	40	1		0.03	—0.23	0.30	0	1	27	0	3	SW	Agent So. Pacific Co.	
Wadsworth	Washoe	4,077	27	63.4	—9.6	94	30	36	2						29	1	0	0	W	Agent So. Pacific Co.	
Wells—1	Elko	5,623	28	58.5	—6.6	94	18	21	5	54	0.34	—0.05	0.34	0	1	24	2	4	SW	A. Fisher	
Winnemucca—1	Humboldt	4,432	20	61.0	—1.0	93	17	35	6	47	0.61	—0.11	0.39	0	3	17	10	3	SW	U. S. Weather Bureau	
SOUTHERN SECTION.																					
Bunkerville	Lincoln																			Miss Emily J. Lee	
Candelaria—1	Esmeralda	5,783	9	66.4		95	17	39	1	42						26	2	2	W	R. F. Laffoon	
Darrough Ranch	Nye	4,500																			
Empire Ranch—1	Nye	6,990	6	67.4	—2.4	100	8	30	2	58	0.72	+0.62	0.32	2.5	3	15	4	11	N	Miss Bessie Potts	
Hawthorne—1	Esmeralda	4,569	11	60.6	—7.7	95	16	43	2	44	0.10	—0.19	0.10	0	1	18	7	5	NW	C. P. Mengel	
Las Vegas—1	Lincoln	2,074	4	70.4	—2.4	95	11	50	2	36	0.25	+0.20	0.25	0	1	25	4	1	W	E. B. Kiel	
Midas—1	Nye	7,200																		Geo. Nicholl	
Palmetto—1	Esmeralda	6,500	9	61.7	+3.1	92	30	34	7	50	1.13	+0.64	0.70	4.0	3	26	1	3	W	Wm. Oothout, Jr.	
Panaca	Lincoln																				
St. Thomas—1	Lincoln	1,600																		Geo. B. Whitney	
San Antonio—1	Nye	4,500																		Mrs. Eli Baker	
Silver Peak—1	Esmeralda	4,382	3	76.6	+6.8	102	19	46	2	49	0.25	+0.25	0.15	0	2	27	1	2	N	Chas. G. Fogg	
Sodaville—1	Esmeralda	4,665		70.6		100	17	41	1	47	0.15		0.10	0	2	20	5	5	N	T. G. Watterson	
Tybo—1	Nye	6,500	7	66.0	+2.8	97	15	35	1	45	0.63	+0.57	0.33	0	3	20	9	1	E	Jas. B. Gilmore	
Means or Extremes					63.7	—1.8	103	23	21	5	59	0.60	+0.29	0.60	6.5	2	22	4	4	W	Means or Extremes

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

High Winds—Palmetto, 24; Tybo, 12, 13, 22, 23.

Thunderstorms—Carson City, 18; Golconda, 17; Palmetto, 18; Reno, 18; Tecoma, 2; Tybo, 2, 17.

Light Frost—Carson City, 7, 14; Clover Valley, 13, 14; Empire Ranch, 1, 2, 3, 4, 5, 7.

Ice—Elko, 6.

Snow—Palmetto, 1; Empire Ranch, 1, 2.

Hail—Carson City, 1; Empire Ranch, 1, 2; Tybo, 3.

Sleet—Palmetto, 1.

DAILY PRECIPITATION FOR JUNE, 1899.

Stations.	Day of Month.																															Total.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
NORTHERN SECTION.																																	
Austin	.75	.50																															1.25
Battle Mountain																																	0.25
Beowawe							.10					T																				0.39	
Carlin	.39		.15	T														T															
Carson City																																	0.07
Carson City (W. B.)	.07																	T														0.65	
Clover Valley	.58	.07																														0.75	
Crane's Ranch	.65	.10																														2.00	
Elko	1.10	.90																														0.95	
Ely	.65	.10																.20															
Fenelon	.64	.36																														1.00	
Golconda	.10	.48	.35	.35																												1.28	
Halleck	T																															T	
Hot Springs																																	0.43
Humboldt	.08	.35																															T
Lee	*	T																														0.06	
Lever's Ranch	.06	T																														0.28	
Lovelock	.20	.08																T														0.05	
McGill																																	
Mill City		.05																															
Martin's Ranch																																	
Monitor Mill	.65	.10															.20																0.95
Oseola																																	2.62
Palisade	.97	1.00	.65																														0.40
Reno	.40	T																															
South Fork																																	
St. Clair	.02		.12																	.07													0.21
Tecoma	T	T	T																														T
Toano																																	1.25
Toano																																	
Tuscarora	.55	.70																															T
Tuscarora																																	
Verdi	.03																																0.03
Wadsworth																																	
Wells	.34																																0.34
Winnemucca	.27	.39	.01																	T													0.67
SOUTHERN SECTION.																																	
Bunkerville																																	0.00
Candelaria																																	
Darrough Ranch																																	
Empire Ranch																																	
Hawthorne	.30	.32	.10																														
Hawthorne	T	.10																															0.10
Hawthorne																																	
Las Vegas																																	
Las Vegas	T	.25																															0.25
Midas																																	
Palmetto	.40	.70																.03															1.13
Panaca																																	
Panaca																																	
St. Thomas																																	
St. Thomas																																	
San Antonio																																	
San Antonio	.15	.10																															0.25
Silver Peak																																	0.15
Sodaville	.10	.05																															0.63
Sodaville																																	
Tybo	.33	.17	.13																														
Tybo																																	

T indicates trace. *Precipitation included in that of following day.

TOTAL PRECIPITATION FOR JUNE, 1899.



ill counties, but no damage of any consequence is reported. There was an entire absence of precipitation, the weather being generally clear and sunshiny. The exceptionally fine weather, following the prolonged cold spell, has given a decided impetus to growth of vegetation, and there has been a great improvement in the condition of crops throughout the State during the past seven days. Corn and potatoes, where damaged by recent frosts, have taken another start and are now growing rapidly. Reports indicate that the grain and hay crops are looking well and making satisfactory progress. In the western districts barley is heading out, and in the extreme southern portion of the State the harvesting of hay and grain is in operation. Early peas are blooming in Churchill county. Fruit trees are still blooming in Elko, and Humboldt counties. In a few localities there is complaint of a scarcity of range feed, but in most districts it is ample and stock is in fair condition.

Week ending June 19th—The reports of correspondents for the week ending June 19th indicate that the weather conditions have been unusually favorable in all districts for the growth and development of crops. Light frost occurred on the morning of the 13th and 14th in portions of Eureka, White Pine, Lander, Elko and Humboldt counties, but no damage is reported. The days were bright and sunny with an excess of temperature averaging about five degrees daily above normal. There was no rain worthy of mention during the entire week. In most sections the condition of the ranges would be greatly improved by rain, but they are not dry enough yet to be seriously affected by the absence of moisture. Stock is doing well on the feed now available. The principal crops made rapid growth during the week, and are everywhere reported in excellent condition. In the extreme northern portion of the State the fruit trees are still

blooming, and potatoes planted in April are still coming up, but rather late to escape the early frost. Harvesting grain and alfalfa continues in Lincoln county, the weather being very favorable for prosecuting the work. Alfalfa, peas and early potatoes are blooming in western districts. Garden truck is growing nicely in all sections. Water is plentiful in all parts of the State for irrigation and domestic purposes.

Week ending June 26th—During the forepart of the week ending June 26th the temperature ranged from 1 to 5 degrees above normal, while the latter part was quite cool and windy. Bright sunshine prevailed throughout the entire week. Scattered thunderstorms occurred in eastern and western sections on the 18th and 19th. The precipitation was inappreciable and of no particular benefit to vegetation. Light frost occurred in portions of Elko and White Pine counties, on the morning of the 21st. According to reports of correspondents, the climatic conditions were very favorable for rapid and satisfactory growth of well irrigated crops. In portions of Elko, Churchill and Eureka counties, the range feed is rather short, and cattle are not looking as well as they generally do this time of the year. In Lincoln county the harvesting of grain is nearing completion, and the second cutting of alfalfa is in progress. Haying will become general in western districts during the coming week. Reports concerning the condition of wheat, barley and oats are very flattering, and indicate that these crops are growing nicely and looking well. In western districts wheat is heading out and potatoes are in bloom. Strawberries are ripe and ready for market in Washoe county. Garden truck is doing well. Carson river is falling; high water in Elko county. The eleventh week of the crop season in Nevada closes with favorable prospects for good crops of all kinds, except fruit.

CARSON CITY, NEVADA :

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR JULY, 1899.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

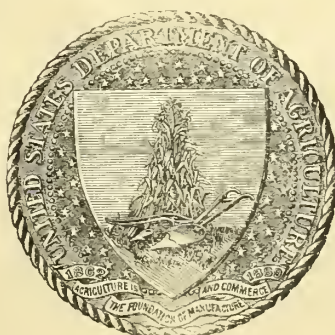
CHIEF OF WEATHER BUREAU,

BY

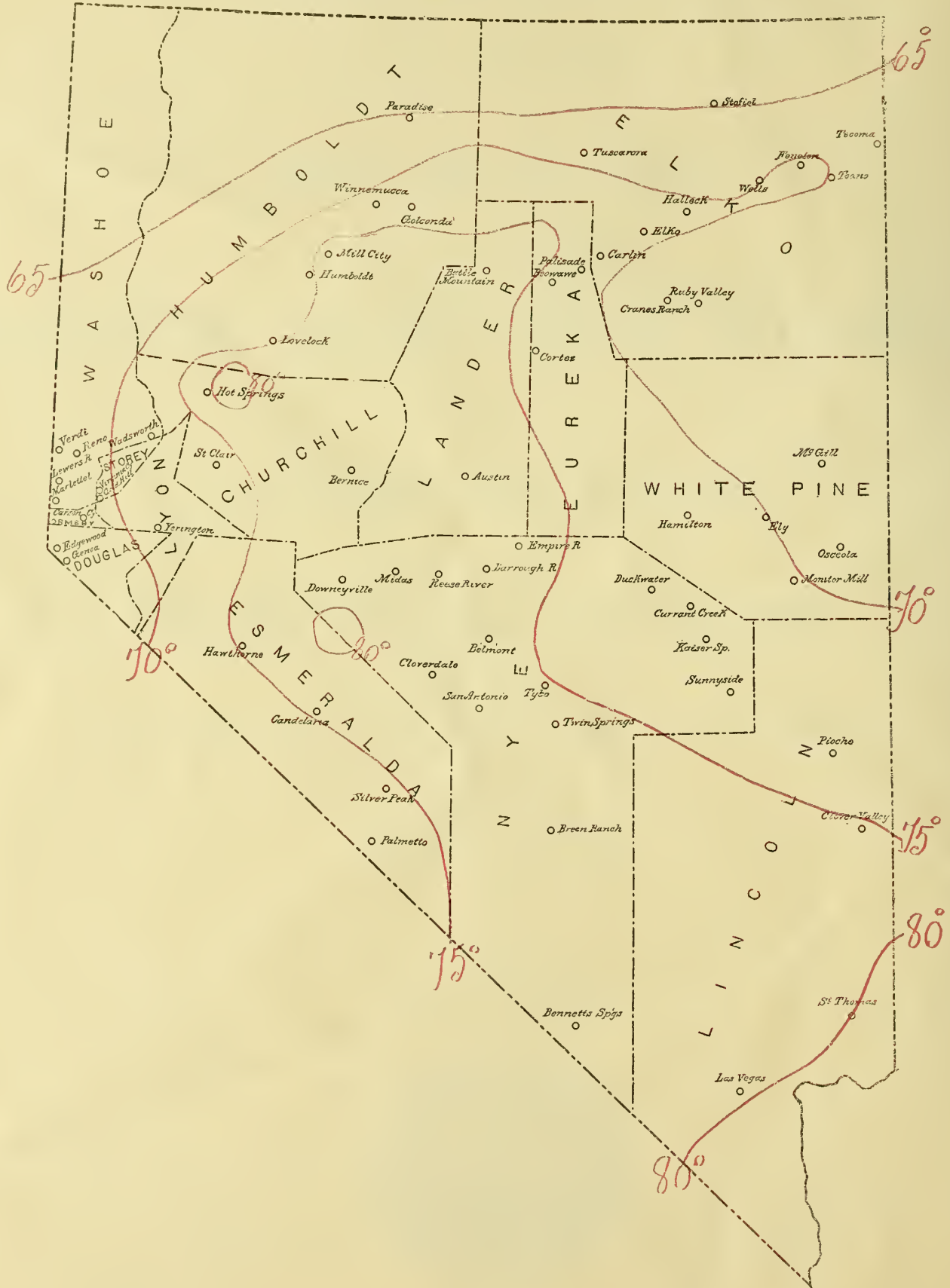
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR JULY, 1899.



U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL XIII.

CARSON CITY, NEVADA.

No. 7.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the Weather Bureau Stations at Carson City and Winnemucca, was 29.86 inches.

The highest pressure, 30.06 inches, was recorded at Winnemucca, on the 23d, and the lowest, 29.65 inches, at Winnemucca, on the 20th. Absolute range of pressure for the State, 0.41 inches.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the records of thirty-two stations, was 72.6, or about normal.

By sections the mean was: Northern, 71.6 degrees; southern, 75.8 degrees.

The highest monthly mean was 80.8 degrees, at Hot Springs, Churchill county.

The lowest monthly mean was 64.2 degrees, at Fenelon, Elko county.

The highest temperature recorded during the month was 106 degrees, at Wadsworth, Washoe county, on the 18th.

The lowest temperature recorded during the month was 34 degrees, at Elko, Elko county, on the 3d.

The absolute range of temperature for the State was 72 degrees.

The greatest local daily range of temperature was 58 degrees, at Elko, on the 24th, and the least, 8 degrees, at Carson City, on the 21st.

Precipitation—Inches and Hundredths.

The precipitation for the State averaged 0.14 of an inch, which is 0.21 of an inch below normal.

By sections the average was: Northern, 0.16 inches; southern, 0.03 inches.

The greatest monthly amount recorded was 0.61 inches, at Ely, White Pine county, and the least monthly amount, a trace, at several stations.

The greatest amount in any twenty-four consecutive hours was 0.40 of an inch, at Clover Valley, on the 1st, and at Toano, on the 28th.

Wind and Weather.

The prevailing direction of the wind was from the west.

The total movement of the wind at Carson City was 5,305 miles, and at Winnemucca, 6,991 miles. The maximum velocity at Carson City was 42 miles per hour, from the southwest, on the 24th, and at Winnemucca 42 miles per hour, from the southwest, on the 25th.

The average number of clear days was 22; partly cloudy,

5; cloudy, 4; days on which .01 of an inch or more precipitation occurred, 2.

COMPARATIVE PRECIPITATION AND TEMPERATURE DATA FOR JULY DURING THE PAST TWELVE YEARS.

Year.	Mean Temperature	Average precipitation, inches and hundredths.
1888	70.6	0.27
1889	76.1	
1890	74.0	0.15
1891	70.4	0.53
1892	70.6	0.67
1893	70.3	0.40
1894	71.7	0.75
1895	70.2	0.05
1896	72.7	0.79
1897	69.1	0.28
1898	73.5	0.12
1899	72.6	0.14

REVIEW OF WEATHER AND CROP CONDITIONS DURING JULY.

Week ending July 10th—The temperature during the week averaged slightly below normal. The days were moderately warm, but the nights have been rather cool, especially on the 8th, 9th, and 11th, when the mercury fell dangerously close to the freezing point in some of the western districts. There was no rain reported during the week. While drought conditions continue, and cold nights have somewhat retarded the growth of gardens, the week on the whole has been very favorable for harvesting operations and the advancement of all crops which are under proper irrigation. Haying progressed in nearly all sections with varying results. In a few localities the yield of alfalfa is reported as rather light on account of the heavy May frosts. Wheat and barley are heading out well and indicate good crops. In western districts potatoes and peas are ready for use. Garden truck is doing well and the vegetable crops generally are in excellent condition, though somewhat backward in a few localities.

Week ending July 17th—The latter part of the week was very hot, but the moderately cool nights during the first part reduced the average temperature for the week to about normal. Heavy rain and hail occurred at McDermitt, Elko county, on the 12th, and a few light sprinkles at White, Eureka county, on the 10th and 13th. The sky was generally cloudless during the entire week. The weather conditions during the past seven days were all that could be desired for harvesting operations and growth of irrigated crops. All crops are in excellent condition and making satisfactory progress. The harvesting of alfalfa is now pretty general all over the State; in some localities the yield is reported much lighter than usual on account of adverse weather conditions, while in others an average crop is being cut. Grain is ripening rapidly, but in some districts prematurely, on account of hot, drying winds. The ranges in most sections are in poor condition on account of the prevailing drought, and grass for stock is rather short and insufficient. The streams are falling rapidly and water for irrigating purposes is getting rather scarce.

Week ending July 24th—The week was hot and dry, the excess of temperature averaging about five degrees per day above normal. High, drying winds prevailed over the State on the 20th and 21st, and heavy showers occurred at Alexander, Elko county, on the 18th, with a few light sprinkles

Continued on page 8.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JULY, 1899.

Stations.	Day of Month.																															Monthly means.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
NORTHERN SECTION.																																	
Austin	Max. 87	90	88	86	82	82	83	87	86	83	85	86	90	90	90	94	96	94	94	89	84	84	90	94	90	90	91	88	85	83	84	87.9	
Carson City	Min. 44	46	49	48	45	44	45	39	39	42	42	44	49	46	47	50	52	52	51	52	71	51	40	48	44	46	46	48	41	42	40	46.9	
Carson City (W. B.)	Max. 85	89	85	84	79	79	80	85	86	81	83	84	87	89	88	93	94	95	94	86	82	74	83	90	88	88	90	85	83	83	81	86.1	
Elko	Min. 50	48	55	54	51	50	51	44	45	47	39	51	48	48	52	54	57	56	57	61	74	53	45	55	55	49	51	54	46	52	44	51.6	
Ely	Max. 89	90	86	89	95	92	89	91	96	92	95	90	86	90	92	91	95	94	100	96	92	89	92	93	95	92	95	91	93	91	87	91.9	
Ely	Min. 36	38	34	40	43	41	43	40	42	43	40	44	45	45	40	44	38	36	44	43	44	38	34	36	40	45	40	42	42	36	41.3		
Lewers' Ranch	Max. 89	93	92	91	90	87	88	92	93	93	90	89	88	90	89	90	94	93	94	93	87	84	85	92	96	91	92	94	92	89	90	90.9	
Lewers' Ranch	Min. 56	47	46	47	50	45	46	50	52	52	50	49	46	45	45	48	52	51	50	55	52	45	48	62	53	56	47	45	45	48	48	49.7	
Martin's Ranch	Max. 86	87	84	80	80	84	84	82	83	84	87	86	88	92	91	96	94	96	94	86	82	82	91	94	89	88	90	86	82	86	81	86.1	
Martin's Ranch	Min. 48	60	53	52	46	46	50	42	42	45	45	47	50	48	50	71	55	69	56	56	56	42	48	54	50	50	50	46	48	44	46	50.5	
Monitor Mill	Max. 84	87	83	85	80	80	82	82	82	82	81	84	86	84	89	90	92	92	92	85	83	82	87	88	84	86	84	80	81	80	82	84.2	
Monitor Mill	Min. 46	47	53	50	46	42	44	41	42	45	47	46	47	47	47	51	54	53	54	53	53	47	47	46	47	46	44	43	40	41	47.5		
McGill	Max. 89	91	90	91	89	88	87	90	91	92	90	91	90	89	90	90	93	92	90	93	92	90	91	94	91	90	92	97	90	89	91	90.4	
McGill	Min. 56	48	49	48	49	47	46	49	50	52	49	50	48	47	49	51	50	52	51	53	51	48	49	60	61	57	55	48	46	47	49	50.5	
SOUTHERN SECTION.																																	
Candelaria	Max. 90	91	95	95	95	88	88	93	92	91	91	91	93	93	93	93	95	95	96	98	98	86	95	91	95	94	92	92	95	96	92	92.9	
Candelaria	Min. 58	59	59	59	58	55	56	56	58	56	58	57	58	60	59	61	68	61	66	68	64	68	54	56	68	67	66	66	67	60	55	55	50.0
Empire Ranch	Max. 98	99	100	102	100	96	96	92	90	96	99	100	102	100	97	100	101	102	98	94	94	90	92	93	95	96	90	91	89	89	94	95.8	
Empire Ranch	Min. 48	50	59	65	64	60	50	63	59	64	63	65	60	63	64	62	63	67	60	61	60	59	60	58	50	56	54	52	53	50	48	58.4	
Hawthorne	Max. 88	90	93	95	89	87	87	90	89	89	89	89	93	94	91	97	97	98	98	99	99	91	92	92	84	93	94	93	93	92	89	92.1	
Hawthorne	Min. 59	57	62	59	57	58	55	55	56	53	53	60	61	62	62	60	65	67	61	66	60	61	55	59	60	58	62	62	59	57	55	59.2	
Las Vegas	Max. 91	92	90	87	84	82	85	86	81	83	90	90	90	90	93	86	88	89	93	94	89	91	90	95	92	95	92	90	83	95	83	89.0	
Las Vegas	Min. 70	71	62	62	62	61	60	59	60	62	67	65	67	65	67	64	68	70	72	74	72	66	65	75	62	70	67	67	60	60	67	66.0	
Midas	Max. 92	89	93	86	86	83	88	86	87	87	85	85	89	87	89	93	96	96	96	92	87	91	90	90	87	90	92	92	88	92	90	89.1	
Palmetto	Min. 48	49	47	50	46	47	42	45	46	47	47	47	47	47	50	46	51	50	56	56	57	47	46	55	55	52	50	48	48	46	48	48.8	
Panaca	Max. 92	95	98	100	97	95	95	94	97	97	95	96	96	97	98	102	102	102	101	103	102	102	100	99	99	98	98	99	97	99	98	97	97.8
Silver Peak	Min. 62	63	65	68	65	62	63	64	66	62	62	63	63	63	62	58	59	58	73	62	58	54	56	56	60	62	69	68	65	60	62	62.6	
Sodaville	Max. 91	89	92	89	92	89	92	94	93	90	90	92	94	94	92	97	94	94	94	94	93	93	94	89	92	93	95	95	93	91	92	92.5	
Sodaville	Min. 57	58	53	65	55	54	56	55	54	56	58	56	53	55	54	53	55	58	63	61	76	71	57	52	52	59	61	62	61	60	60	58.3	
Tybo	Max. 92	95	98	100	97	95	95	94	97	97	95	96	96	97	98	102	102	102	101	103	102	102	100	99	99	98	98	99	97	99	98	97	97.8
Tybo	Min. 62	63	65	68	65	62	63	64	66	62	62	63	63	63	62	58	59	58	73	62	58	54	56	56	60	62	69	68	65	60	62	62.6	
Tybo	Max. 91	89	92	89	92	89	92	94	93	90	90	92	94	94	92	97	94	94	94	94	93	93	94	89	92	93	95	95	93	91	92	92.5	
Tybo	Min. 57	58	53	65	55	54	56	55	54	56	58	56	53	55	54	53	55	58	63	61	76	71	57	52	52	59	61	62	61	60	60	58.3	

CLIMATOLOGICAL DATA FOR JULY, 1899.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (Inches).				Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (in melted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.		
NORTHERN SECTION.																				
Austin—1	Lander	6,594	11																M. D. Murphy	
Battle Mountain	Lander	4,511	28	78.0	+0.6	99	18	53	31		T	-0.12	T	0	0	30	1	0	SE, SW	
Beowawe	Eureka	4,695	28	77.2	+0.8	100	18	60	23		T	-0.20	T	0	0	20	0	11	S	
Carlin	Elko	4,897	28	71.4	-1.6	98	14	48	5		0.15	-0.02	0.15	0	1	27	1	3	SW	
Carson City—1	Ormsby	4,660	19	67.4	+0.1	96	18	49	8	48	T	-0.17	T	0	0	27	4	0	W	
Carson City (W. B.)—1	Ormsby	4,720	11	68.8	+1.5	95	18	39	11	56	T	-0.17	T	0	0	28	3	0	W	
Clover Valley	Elko	6,000									0.48	-0.20	0.40	0	2	16	15	0		
Crane's Ranch	Elko	5,350	11								0.04	-0.27	0.03	0	2	28	3	0	W	
Elko—1	Elko	5,063	28	66.6		100	19	34	3	59				0	19	9	3	NE		
Ely—1	White Pine	6,000	11	70.3	+3.0	96	24	45	6	46	0.61	+0.04	0.35	0	5	7	9	15	S	
Fenelon	Elko	6,128	11	64.2	-11.4	87	19	40	30		0.40	+0.34	0.30	0	1	16	12	3	W	
Goldconda	Humboldt	4,392	20	69.3	-9.0	100	16	51	3		0.03	-0.05	0.03	0	1	24	2	5	SW	
Halleck	Elko	5,229	26	71.5	-1.4	106	19	52	24		T	-0.10	T	0	0	12	17	2	SW	
Hot Springs	Churchill	4,072	11	80.8	+0.4	104	18	65	11		T	-0.17	T	0	0	21	0	10	NW	
Humboldt	Humboldt	4,236	27	74.2	+0.2	95	17	60	16		T	-0.02	T	0	0	28	2	1	S	
Lee	Elko										0.10		0.10	0	1	11	10	10	SW	
Lewers' Ranch—1	Washoe	5,200	11	68.4	-0.1	96	18	42	8	43	0.01	-0.19	0.01	0	1	27	4	0	SW	
Lovelock	Humboldt	3,977	7	76.6	-2.5	100	18	60	8					0		31	0	0	N	
Martin's Ranch—1	Douglas	4,830		65.8		92	18	40	30	41	0.09		0.00	0	0	31	0	0	SW	
McGill—1	White Pine	5,200																		
Mill City	Humboldt	4,225	10	74.9	-0.7	110	17	50	5		0.05	-0.05	0.05	0	1	17	11	3	W	
Monitor Mill—1	White Pine	6,400		70.4		94	24	46	7	46	0.58		0.32	0	5	9	7	15	S	
Palisade	Eureka	4,821	17	75.8	+1.3	101	19	60	23		0.11	-0.02	0.11	0	1	22	5	4	SE	
Reno—1	Washoe	4,484	28	69.5	-3.6	98	19	42	16	47	0.22	+0.14	0.22	0	1	23	7	1	W	
St. Clair—1	Churchill	4,000	7																	
Tecoma	Elko	4,812	21	73.2	-4.8	100	9	58	22		T	-0.20	T	0	0	20	1	10	E	
Toano	Elko	5,975	29	71.1	-3.4	98	20	56	2		0.40	+0.15	0.40	0	1	27	1	3	S	
Tuscarora—1	Elko	6,400	8	68.0	+2.0	90	19	43	22	41	0.33	+0.19	0.23	0	2				W	
Verdi	Washoe	4,895	9	73.2	+4.0	104	16	55	8					0		29	0	2	SW	
Wadsworth	Washoe	4,077	27	71.8	-8.6	106	18	40	7		0.10	-0.12	0.10	0	1	26	1		W	
Wells—1	Elko	5,628	28	68.2	-4.8	99	19	40	1	52	0.37	+0.14	0.22	0	2	24	5	2	W	
Winnemucca—1	Humboldt	4,432	20	72.0	+1.0	98	19	45	9	49	0.16	+0.01	0.16	0	1	19	10	2	W	
SOUTHERN SECTION.																				
Bunkerville	Lincoln																			
Candelaria—1	Esmeralda	5,783	9	76.0	+1.6	98	20	54	22	41	T	-0.36	T	0	0	26	0	5	W	
Empire Ranch—1	Nye	6,990	6	77.1	+0.7	102	4	48	1	50	0.05	-0.77	0.03	0	2	13	2	16	N	
Hawthorne—1	Esmeralda	4,569	11	75.6	+1.0	99	20	53	10	39	0.02	-0.25	0.02	0	1	16	11	4	NW	
Las Vegas—1	Lincoln	2,074	4	77.5	-0.7	95	24	59	8	35	T	-0.18	T	0	0	27	4	0	S	
Midas—1	Nye	7,200																		
Palmetto—1	Esmeralda	6,500	9	69.0	-2.2	96	19	42	7	46	0.01	-1.14	0.01	0	1	26	5	0	SE	
Panaca	Lincoln																			
Silver Peak—1	Esmeralda	4,382	3																	
Sodaville—1	Esmeralda	4,665		80.2		103	20	54	22	44	0.07		0.07	0	1	14	13	4	N	
Tybo—1	Nye	6,500	7	75.4	+5.6	97	16	52	24	44	0.07	-0.65	0.07	0	1	17	14	0	E	

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

High Winds—Empire Ranch, 21; Carson City, 3, 8, 21, 24, 29.

Thunderstorms—Reno, 24; Empire Ranch, 25; Las Vegas, 24; Wells,

10, 12, 14, 28; Beowawe, 25; Carson City, 24, 25; Tybo, 2, 18, 19, 24; Hot Springs, 25; Halleck, 25, 28; Tecoma, 11, 13, 20, 28.

Hail—Clover Valley, 1; Tecoma, 11.

Light Frost—Carson City, 31.

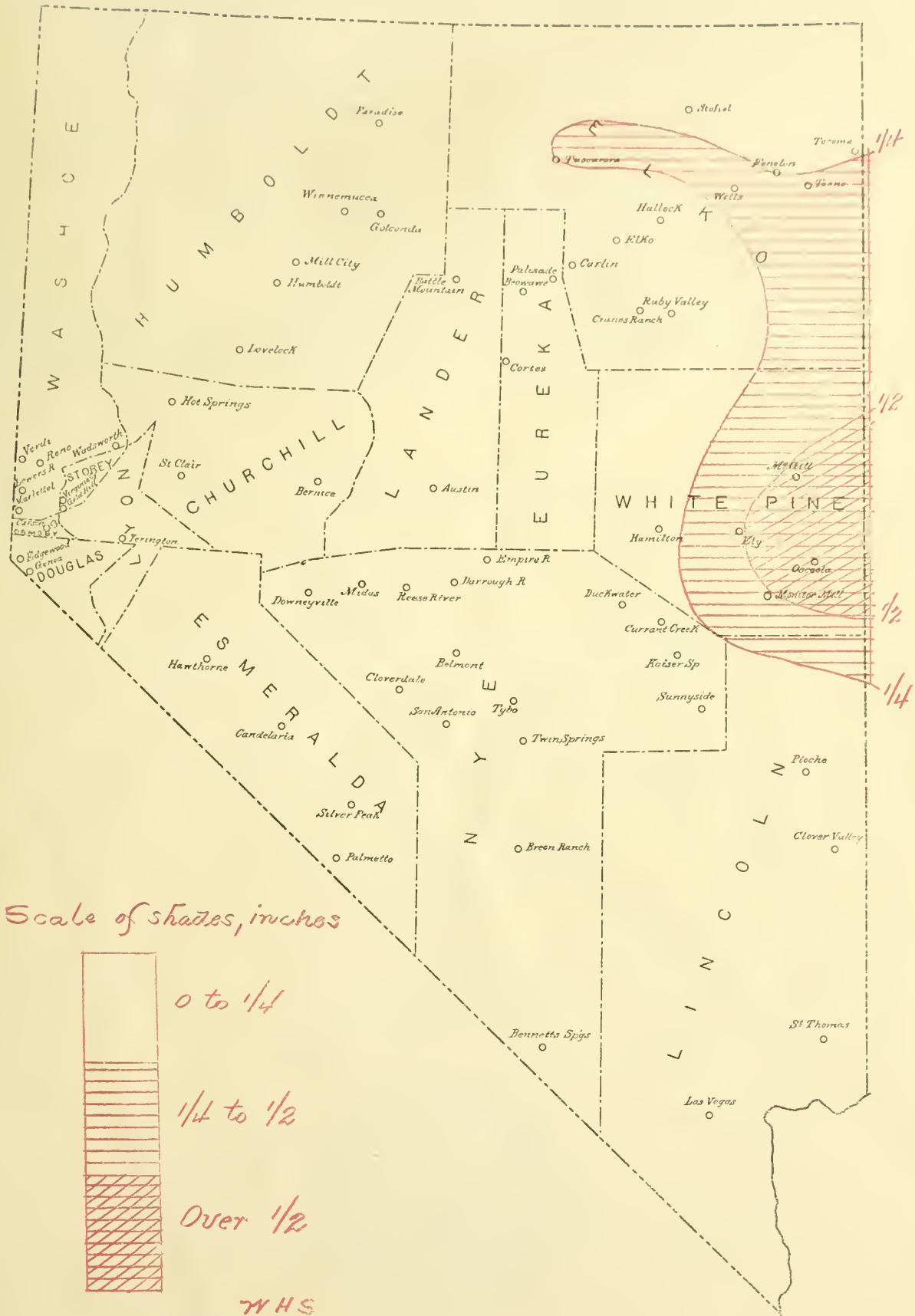
CLIMATE AND CROPS: NEVADA SECTION.

JULY, 1899.

Stations.	Day of Month.																															Total F			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
NORTHERN SECTION.																																			
Austin																																	T		
Battle Mountain														T																			T		
Beowawe																												.15						T	
Carlin																									T								T		
Carson City																																			
Carson City (W. B.)																																			
Clover Valley	.40																																		
Crane's Ranch																	.01									.08									
Elko														T												.03	T								
Ely	T .10												.10	.35						.05								.01							
Fenelon	.30																																		
Golconda																													.10						
Halleck																														T					
Hot Springs															T																				
Humboldt																																			
Lee												T																							
Lewers' Ranch																																			
Lovelock																																			
McGill																																			
Mill City																																			
Martin's Ranch																																			
Monitor Mill	T .10																																		
Palisade																																			
Reno																																			
St. Clair																																			
Tecoma											T																								
Toano																				T															
Tuscarora														T	.23		T		T																
Vend																																			
Wadsworth																																			
Wells																																			
Winemucca														T	.22																				
Winemucca																T													.16						
SOUTHERN SECTION.																																			
Bankerville																																			
Candelaria																																			
Empire Ranch																																			
Hawthorne																																			
Las Vegas																																			
Midas																																			
Palmetto	.01	T																																	
Panaca																																			
Silver Peak																																			
Sodaville																																			
Tybo																																			

T indicates trace. *Precipitation included in that of following day.

TOTAL PRECIPITATION FOR JULY, 1899.




at White, Eureka county, on the 19th. The week on the whole was generally favorable to the growing crops and for harvesting operations, but a little too windy for hauling hay. Reports for the past week are very favorable and indicate that the hay, grain and vegetable crops are in excellent condition and growing nicely where water is plentiful for irrigation purposes. Wheat is ripening rapidly and will soon be ready to cut; barley is being harvested in some of the western districts. The first crop of alfalfa is nearly all cut and stacked, and the second crop is growing nicely and looks quite promising. The first crop is somewhat unsatisfactory in most sections, the yield being much lighter than usual on account of the heavy May frosts and the hot, drying winds of June. In Humboldt county the hay crop is very promising, and the outlook for at least an average yield of both wild and tame hay is very encouraging. The condition of corn, potatoes and garden truck is satisfactory, though a few good showers would be of great benefit to these crops. The absence of rain has increased the intensity of the prevailing

drought which is seriously affecting the ranges, and also causing the premature ripening of grain in a few localities where water for stock and irrigating purposes is scarce.

Week ending July 31st—The weather conditions of the week have been highly favorable to the growing crops and for harvesting hay. The temperature averaged about normal, the weather being considerably cooler than during the previous week. Scattered showers occurred in portions of Elko, White Pine, Eureka and Washoe counties, on the 25th, but at no place was the rainfall sufficient to break the prevailing drought. High winds during the week interfered with the hauling and stacking of hay. In Eureka county where the rainfall was heaviest some hay was damaged. On the whole the week was very favorable for crops of all kinds. Grain continues in good condition and will soon be ready for the harvester. Corn is beginning to tassel and new potatoes are on the market in Washoe county. Wild hay is being cut with rather a light yield in some districts. Garden truck is reported promising in all sections.

CARSON CITY, NEVADA :

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1899

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR AUGUST, 1899.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

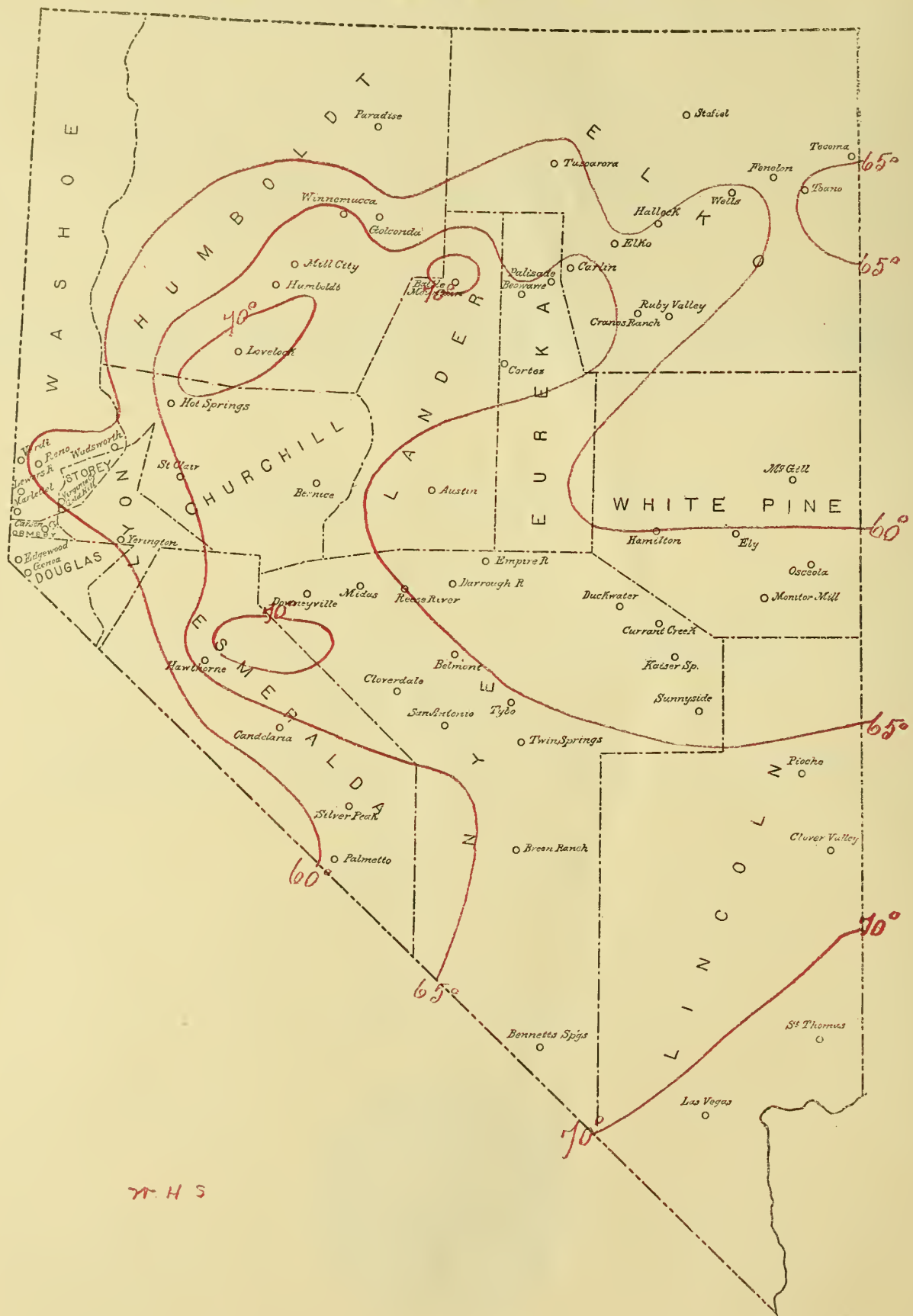
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR AUGUST, 1899.



U. S. DEPARTMENT OF AGRICULTURE,
CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL. XIII.

CARSON CITY, NEVADA.

No. 7.

CLIMATOLOGY OF THE MONTH.**Atmospheric Pressure—Inches and Hundredths.**

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the Weather Bureau Stations at Carson City and Winnemucca, was 29.88 inches.

The highest pressure, 30.17 inches, was recorded at Winnemucca, on the 23d, and the lowest, 29.69 inches, at Winnemucca, on the 20th. Absolute range of pressure for the State, 0.48 inches.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the records of thirty-three stations, was 63.7, or about 7 degrees below normal.

By sections the mean was: Northern, 62.9 degrees; southern, 66.5 degrees.

The highest monthly mean was 72.6 degrees, at Hot Springs, Churchill county.

The lowest monthly mean was 49.3 degrees, at Fenelon, Elko county.

The highest temperature recorded during the month was 99 degrees, at Empire Ranch, Nye county, on the 2d.

The lowest temperature recorded during the month was 20 degrees, at Wells, Elko county, on the 20th.

The absolute range of temperature for the State was 79 degrees.

The greatest local daily range of temperature at stations equipped with self-registering instruments was 53 degrees, at Wells, Elko county, on the 16th, and the least, 3 degrees, at Las Vegas, Lincoln county, on the 2d.

Precipitation—Inches and Hundredths.

The precipitation for the State averaged 0.82 inches, which is 0.15 inches above normal.

By sections the average was: Northern, 0.82 inches; southern, 0.83 inches.

The greatest monthly amount recorded was 3.10 inches, at Elko, Elko county, and the least monthly amount, none, at Mill City, Humboldt county, and Las Vegas, Lincoln county.

The greatest amount recorded in any twenty-four consecutive hours was 1.32 inches at Reno, Washoe county, on the 4th.

Wind and Weather.

The prevailing direction of the wind was from the west.

The total movement of the wind at Carson City was 5,246 miles, and at Winnemucca, 6,864 miles. The maximum velocity at Carson City was 34 miles per hour, from the west, on the 6th, and at Winnemucca, 37 miles per hour, from the west, on the 20th.

The average number of clear days was 19; partly cloudy, 5; cloudy, 7; days on which .01 of an inch or more of precipitation occurred, 3.

COMPARATIVE PRECIPITATION AND TEMPERATURE DATA FOR AUGUST DURING THE PAST ELEVEN YEARS.

Year.	Mean Temperature.	Average precipitation, inches and hundredths.
1889	73.2	1.06
1890	70.1	2.06
1891	72.0	0.44
1892	71.2	0.01
1893	71.1	0.67
1894	71.0	0.45
1895	70.6	0.63
1896	69.0	0.82
1897	73.3	0.31
1898	73.6	0.45
1899	63.7	0.82

OBSERVERS' REMARKS.

CLOVER VALLEY—Grain was damaged by the freeze of the 22d, especially wheat, which was damaged at least 40 per cent. A. H. WISEMAN.

TUSCARORA—This has been the coldest August for twenty years. JAS. D. GEISELMAN.

LEWERS' RANCH (near Franktown)—Snow on high mountains on the 18th. ED. LEWERS.

RENO—Light rain with thunder and lightning on the 3d. Terrific thunderstorm with heavy rain and some hail, accompanied by high easterly wind on 14th. Mount Rose white with snow, Slide Mountain and Mackay & Fair Mountain powdered with snow on the 18th. Light frost on night of 21st did some damage to vegetables on ranches in vicinity. SAMUEL B. DOTEN.

MARTIN'S RANCH (near Gardnerville)—The second crop of alfalfa is being cut, but it is light, owing to frost and lack of water. The grain is nearly all cut; appears fairly good. The frost on 22d and 23d nearly ruined the potato crop in many places. J. H. MARTIN.

EMPIRE RANCH (near Belmont)—Heavy thunder on 3d. The hill tops were covered with snow on the 17th. High wind on 5th. Hail fell to a depth of two inches on the 6th. Heavy frost on 15th, 22d and 23d. MISS BESSIE POTTS.

CARSON CITY—Frost on the 22d and 23d injured corn, tomatoes and other tender vegetables. C. W. FRIEND.

LEE—The heavy frost on the night of the 21st did much damage to the gardens, grain, fruit and alfalfa in this vicinity. MISS JENNIE WILLIAMS.

REVIEW OF WEATHER AND CROP CONDITIONS DURING AUGUST.

Week ending August 7th—The week ending August 7th was much cooler than usual, the temperature averaging about four degrees per day below normal. The copious and refreshing thunder-showers, which were general throughout the State during the latter part of the week, relieved the drought conditions which have prevailed with more or less severity for the past two months. Considerable hail fell in the western districts during the thunderstorm on the 4th, but no damage

Continued on page 8.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR AUGUST, 1899.

Stations.	Day of Month.																															Monthly means.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
NORTHERN SECTION.																																	
Austin	Max.																																
Carson City	Min.	81	83	72	82	80	78	78	78	81	80	78	74	70	74	75	70	71	78	73	70	75	81	82	81	79	80	81	83	87	83	78.0	
Carson City (W. B.)	Max.	58	58	54	42	55	48	50	47	43	47	47	45	46	46	42	38	48	43	42	52	52	35	35	39	41	40	41	40	37	40	51	41.0
Elko	Min.	79	80	78	69	80	81	77	76	78	76	73	69	70	73	68	70	75	71	68	74	80	79	78	76	78	76	78	81	86	82	76.0	
Ely	Max.	42	44	50	54	58	50	54	53	50	53	52	46	50	45	42	42	44	45	56	40	40	39	45	48	48	46	48	43	45	57	48.2	
Lewers' Ranch	Min.	88	85	81	78	84	86	80	83	84	80	81	82	84	79	74	78	76	73	81	81	78	76	80	81	79	84	81	88	89	86	81.4	
Martin's Ranch	Max.	36	40	43	57	41	36	42	37	42	39	45	44	47	36	37	36	38	40	36	40	30	32	36	39	40	38	42	45	44	40	39.3	
Monitor Mill	Min.	88	86	75	71	69	78	80	81	82	80	83	80	77	76	75	76	79	74	72	68	80	82	84	83	83	84	86	83	82	84	79.1	
McGill	Max.	50	53	45	49	45	43	50	52	46	47	46	43	40	38	40	35	42	49	39	32	38	40	36	49	44	47	46	49	43	40	43.8	
Reno	Min.	80	80	70	81	82	76	76	77	78	77	75	68	72	75	68	71	76	72	72	72	72	70	79	80	76	78	79	82	85	81	76.3	
St. Clair	Max.	44	43	46	51	44	48	46	52	51	44	47	46	41	38	41	46	41	44	45	48	33	44	49	44	46	48	47	43	45	59	45.5	
Tascardora	Min.	79	80	78	69	74	78	80	79	68	80	79	42	41	48	52	38	62	74	76	72	70	73	71	78	80	79	77	78	80	40	41	41.8
Wells	Max.	40	41	40	54	50	43	40	42	40	42	41	42	41	42	41	48	52	38	40	42	40	41	33	37	40	42	45	40	42	40	41	41.8
Winnemucca	Min.	89	87	78	76	72	70	79	78	80	81	79	80	81	82	79	76	74	78	80	76	74	70	74	78	80	81	82	84	80	81	83	78.8
	Max.	51	52	46	48	47	44	48	50	49	50	47	44	48	47	45	42	40	44	50	46	42	38	36	41	40	39	41	46	44	48	50	45.3
SOUTHERN SECTION.																																	
Candelaria	Min.																																
Empire Ranch	Max.	91	89	74	75	77	78	83	86	87	84	88	76	75	75	73	76	75	69	79	84	69	73	82	87	86	82	85	87	86	88	88	81.1
Hawthorne	Min.	54	53	58	48	49	50	49	54	56	54	57	56	55	43	52	56	53	42	45	50	50	41	45	51	55	53	56	54	54	55	58	52.1
Las Vegas	Max.	99	97	89	84	75	64	76	87	93	84	85	80	81	82	83	87	88	74	87	82	80	78	88	89	85	84	83	82	85	84	84.3	
Midas	Min.	49	50	47	45	40	45	46	45	50	48	50	49	42	41	43	42	43	40	38	40	38	34	35	42	40	40	41	39	39	40	41	42.6
Palmetto	Max.	87	86	83	85	86	83	83	84	89	86	83	84	89	79	74	77	73	72	81	86	73	72	81	86	87	86	84	84	84	89	88	82.7
Silver Peak	Min.	54	55	62	53	53	55	51	50	56	52	57	54	55	56	51	58	59	49	48	59	54	45	46	50	54	51	55	53	55	53	60	53.6
Tybo	Max.	85	77	76	83	84	71	85	88	87	88	85	78	88	82	80	81	79	78	74	84	85	78	77	80	87	85	87	91	81	85	98	82.8
	Min.	73	74	66	63	75	52	58	47	51	65	65	52	60	59	55	56	60	51	52	65	58	61	56	57	50	55	55	63	68	64	65	60.1
Panacea	Max.																																
Silver Peak	Min.																																
Sodaville	Max.	84	86	78	74	77	62	78	80	84	80	81	81	78	75	76	77	70	76	78	78	76	79	84	84	83	89	83	84	85	80	80	79.5
Tybo	Min.	43	48	52	44	41	46	42	46	46	44	39	42	48	37	40	42	35	39	46	48	32	34	44	44	43	38	42	45	46	50	42.9	
NORTHERN SECTION.																																	
Austin	Max.																																
Carson City	Min.	81	83	72	82	80	78	78	78	81	80	78	74	70	74	75	70	71	78	73	70	75	81	82	81	79	80	81	83	87	83	78.0	
Carson City (W. B.)	Max.	58	58	54	42	55	48	50	47	43	47	47	45	46	46	42	38	48	43	42	52	52	35	35	39	41	40	41	40	37	40	51	41.0
Elko	Min.	79	80	78	69	80	81	77	76	78	76	73	69	70	73	68	70	75	71	68	74	80	79	78	76	78	76	78	81	86	82	76.0	
Ely	Max.	42	44	50	54	58	50	54	53	50	53	52	46	50	45	42	42	44	45	56	40	40	39	45	48	48	46	48	43	45	57	48.2	
Lewers' Ranch	Min.	88	85	81	78	84	86	80	83	84	80	81	82	84	79	74	78	76	73	81	81	78	76	80	81	79	84	81	88	89	86	81.4	
Martin's Ranch	Max.	36	40	43	57	41	36	42	37	42	39	45	44	47	36	37	36	38	40	36	40	30	32	36	39	40	38	42	45	44	40	39.3	
Monitor Mill	Min.	88	86	75	71	69	78	80	81	82	80	83	80	77	76	75	76	79	74	72	68	80	82	84	83	83	84	86	83	82	84	79.1	
McGill	Max.	50	53	45	49	45	43	50	52	46	47	46	43	40	38	40	35	42	49	39	32	38	40	36	49	44	47	46	49	43	40	43.8	
Reno	Min.	80	80	70	81	82	76	76	77	78	77	75	68	72	75	68	71	76	72	72	72	72	70	79	80	76	78	79	82	85	81	76.3	
St. Clair	Max.	44	43	46	51	44	48	46	52	51	44	47	46	41	38	41	46	41	44	45	48	33	44	49	44	46	48	47	43	45	59	45.5	
Tascardora	Min.	79	80	78	69	74	78	80	79	68	80	79	42	41	48	52	38	62	74	76	72	70	73	71	78	80	79	77	78	80	40	41	41.8
Wells	Max.	40	41	40	54	50	43	40	42	40	42	41	42	41	42	41	48	52	38	40	42	40	41	33	37	40	42	45	40	42	40	41	41.8
Winnemucca	Min.	89	87	78	76	72	70	79	78	80	81	79	80	81	82	79	76	74	78	80	76	74	70	74	78	80	81	82	84	80	81	83	78.8
	Max.	51	52	46	48	47	44	48	50	49	50	47	44	48	47	45	42	40	44	50	46	42	38	36	41	40	39	41	46	44	48	50	45.3
SOUTHERN SECTION.																																	
Candelaria	Min.																																
Empire Ranch	Max.	91	89	74	75	77	78	83	86	87	84	88	76	75	75	73	76	75	69	79	84	69	73	82	87	86	82	85	87	86	88	88	81.1
Hawthorne	Min.	54	53	58	48	49	50	49	54	56	54	57	56	55	43	52	56	53	42	45	50	50	41	45	51	55	53	56	54	54	55	58	52.1
Las Vegas	Max.	99	97	89	84	75	64	76	87	93	84	85	80	81	82	83	87	88	74	87	82	80	78	88	89	85	84	83	82	85	84	84.3	
Midas	Min.	49	50	47	45	40	45	46	45	50	48	50	49	42	41	43	42	43	40	38	40	38	34	35	42	40	40	41	39	39	40	41	42.6
Palmetto	Max.	87	86	83	85	86	83	83	84	89	86	83	84	89	79	74	77	73	72	81	86	73	72	81	86	87	86	84	84	84	89	88	82.7
Silver Peak	Min.	54	55	62	53	53	55	51	50	56	52	57	54	55	56	51	58	59	49	48	59	54	45	46	50	54	51	55	53	55	53	60	53.6
Tybo	Max.	85	77	76	83	84	71	85	88	87	88	85	78	88	82	80	81	79	78	74	84	85	78	77	80	87	85	87	91	81	85	98	82.8
	Min.	73	74	66	63	75	52	58	47	51	65	65	52	60	59	55	56	60	51	52	65	58	61	56	57	50	55	55	63	68	64	65	60.1
Panacea	Max.																																
Silver Peak	Min.</																																

CLIMATOLOGICAL DATA FOR AUGUST, 1899.

Stations	Counties	Elevation (feet)	Length of record (years)	Temperature (degrees Fahrenheit)						Precipitation (inches)				Wind				Observer	
				Mean	Departure from the normal	Highest	Date	Low st.	Date	Greatest daily range	Total	Departure from the normal	Greatest in 24 hours	Total snowfall (inches)	Number rainy days	Number clear days	Number partly cloudy days		Number cloudy days	Prevailing direction of wind
NORTHERN SECTION.																			
Austin—1	Lander	6,594	11																M. D. Murphy
Battle Mountain	Lander	4,511	28	70.0	-1.7	95	29	29	22		0.65	+0.53	0.10	0	6	15	0	16	Agent So. Pacific Co.
Beowawe	Eureka	4,695	28	64.6	-10.3	98	8	50	16					0		13	0	18	Agent So. Pacific Co.
Carlin	Elko	4,897	28	66.5	-2.9	90	2	45	18		0.35	-0.18	0.15	0	3	19	0	12	Agent So. Pacific Co.
Carson City—1	Ormsby	4,600	19	61.0	-6.2	87	30	35	22	47	0.65	+0.52	0.31	0	1	19	9	3	Agent So. Pacific Co.
Carson City (W. B.)—1	Ormsby	4,720	11	62.1	-5.1	86	30	39	23	47	0.17	+0.34	0.24	0	4	19	8	4	U. S. Weather Bureau
Clover Valley	Elko	6,000									1.17		0.15	0	4	16	8	7	A. H. Wiseman
Crane's Ranch	Elko	5,350	11								1.60	+1.33	1.25	0	3	24	3	4	W. T. Crane
Elko—1	Elko	5,063	28	60.4	-10.0	89	30	30	22	52	3.10	+2.91	1.25	0	3	17	14	0	C. H. Sproule
Elko	Elko	5,063		57.4		90	27	38	7		1.95	-1.79	0.75	0	5	15	0	16	Agent So. Pacific Co.
Ely—1	White Pine	6,000	11	61.4	-3.1	88	1	32	22	47	1.50	+0.35	0.50	0	5	21	1	9	M. B. Garaghan
Fenelon	Elko	6,128	11	49.3	-21.4	80	30	30	13		0.60	-0.26	0.30	0	2	20	3	8	Agent So. Pacific Co.
Golconda	Humboldt	4,392	20	60.2	-16.5	86	3	36	21		0.50	-0.45	0.30	0	3	17	6	8	Agent So. Pacific Co.
Halleck	Elko	5,229	26	60.2	-9.6	98	2	34	22		0.25	+0.08	0.25	0	2	15	10	6	Agent So. Pacific Co.
Hot Springs	Churchill	4,072	11	72.6	-6.4	92	1	50	23		T	-0.92	T	0	0	28	0	3	Agent So. Pacific Co.
Humboldt	Humboldt	4,236	27	68.2	-5.1	85	1	46	22		0.13	+0.10	0.07	0	2	20	9	2	Agent So. Pacific Co.
Lee	Elko										1.41		0.50	0	5	14	13	4	Miss Jennie Williams
Lewers' Ranch—1	Washoe	5,200	11	60.9	-8.6	85	30	33	22	40	1.21	+0.85	0.64	0	4	19	11	1	E. Lewers
Lovelock	Humboldt	3,977	7	68.9	-9.6	87	30	55	24					0	0	30	0	1	Agent So. Pacific Co.
Martin's Ranch—1	Douglas	4,830		58.5		82	31	33	22	41	0.73		0.30	0	3	26	3	2	J. H. Martin
McGill—1	White Pine	5,200																	Mrs. W. N. McGill
Mill City	Humboldt	4,225	10	66.4	-8.0	94	1	38	22		0.00	+0.12	0.00	0	0	16	4	11	Agent So. Pacific Co.
Monitor Mill—1	White Pine	6,400		62.0		89	1	36	23	42	1.56		0.42	0	6	21	1	9	Jas. B. Orr
Palisade	Eureka	4,821	17	65.4	-7.6	92	12	45	21		1.17	-0.96	0.75	0	2	20	0	11	Agent So. Pacific Co.
Reno—1	Washoe	4,484	28	62.7	-7.7	85	30	38	22	41	1.37	+1.31	1.32	0	2	18	10	3	State University
St. Clair—1	Churchill	4,000	7								T	-0.14	T	0	0	14	0	17	C. Allen
Tecoma	Elko	4,812	21	63.2	-12.8	95	29	40	22		T	-0.20	T	0	0	20	0	11	Agent So. Pacific Co.
Toano	Elko	5,975	29	65.1	-7.4	90	28	45	18		T	-0.20	T	0	0	20	0	11	Agent So. Pacific Co.
Tuscarora—1	Elko	6,400	8	59.5		83	2	31	7	45	0.80	+0.25	0.45	0	2	20	7	4	J. D. Geiselman
Verdi	Washoe	4,895	9	62.2	-6.2	92	1	45	23		1.60	+1.40	0.90	0	4	23	0	8	Agent So. Pacific Co.
Wadsworth	Washoe	4,077	27	60.6	-17.2	96	2	38	22		0.05	-0.05	0.05	0	1	24	7	0	Agent So. Pacific Co.
Wells—1	Elko	5,628	28	59.3	-12.5	88	5	20	20	53	0.56	+0.34	0.20	0	4	19	2	10	A. Fisher
Wells	Elko	5,623		58.2	-13.6	92	2	39	24		2.35	+2.13	1.25	0	4	15	2	14	Agent So. Pacific Co.
Winnemucca—1	Humboldt	4,432	20	63.0	-7.6	87	30	30	22	48	0.23	+0.12	0.11	0	4	14	6	11	U. S. Weather Bureau
SOUTHERN SECTION.																			
Bunkerville	Lincoln																		Miss Emily J. Lee
Candelaria—1	Esmeralda	5,783	9	66.6	-7.7	91	1	41	22	37	1.35	+1.00	0.85	0	3	25	0	6	R. F. Laffoon
Empire Ranch—1	Nye	6,990	6	63.4	-12.7	99	2	34	22	50	0.23	-0.40	0.10	0	4	11	3	17	Miss Bessie Potts
Hawthorne—1	Esmeralda	4,569	11	68.2	-7.9	89	9	45	22	36	0.22	-0.23	0.15	0	3	17	9	5	C. P. Mengel
Las Vegas—1	Lincoln	2,074	4	71.4	-5.8	98	31	47	8	41	0.00	-0.53	0.00	0	0	27	1	3	E. B. Kiel
Midas—1	Nye	7,200																	
Palmetto—1	Esmeralda	6,500	9	61.2	-4.2	89	27	32	22	51	0.96	-0.54	0.53	T	4	26	1	4	Wm. Oothout, Jr.
Panaca	Lincoln																		Chas. G. Fogg
Silver Peak—1	Esmeralda	4,382	3								0.75		0.45	0	3	16	5	10	T. G. Watterson
Sodaville—1	Esmeralda	4,665		70.4		94	1	44	23	42				0	3	16	5	10	
Tybo—1	Nye	6,500	7	64.0	-6.2	89	2	40	22	40	2.32	+1.69	1.10	0	4	16	13	2	Jas. B. Gilmore
Means or Extremes				63.7	-7.0	99	2	20	20	53	0.82	+0.15	1.32	T	3	19	5	7	Means or Extremes

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

Thunderstorms—Carson City, 3, 4, 6, 17; Golconda, 4, 6, 7; Halleck, 3, 4, 8; Tecoma, 3, 4, 5, 7, 8; Tybo, 3, 4, 5, 6; Palmetto, 3, 5, 6; Wadsworth, 7; Hot Springs, 4; Reno, 3.

Hail—Martin's Ranch, 4; Palisade, 2; Reno, 4; Wells, 6; Empire Ranch, 6; Palmetto, 3.

Light Frost—Carson City, 22, 23; Clover Valley, 19, 23; Martin's Ranch, 1, 9, 17; Reno, 21; Empire Ranch, 15, 22, 23; Palmetto, 22; Winnemucca, 23, 24.

Killing Frost—Battle Mountain, 22; Clover Valley, 22; Crane's Ranch, 14, 22, 23, 24, 25; Elko, 22; Golconda, 21; Lee, 21; Martin's Ranch, 22, 23; Wadsworth, 23; Wells, 17, 21; Winnemucca, 22.

Snow—Palmetto, 3.

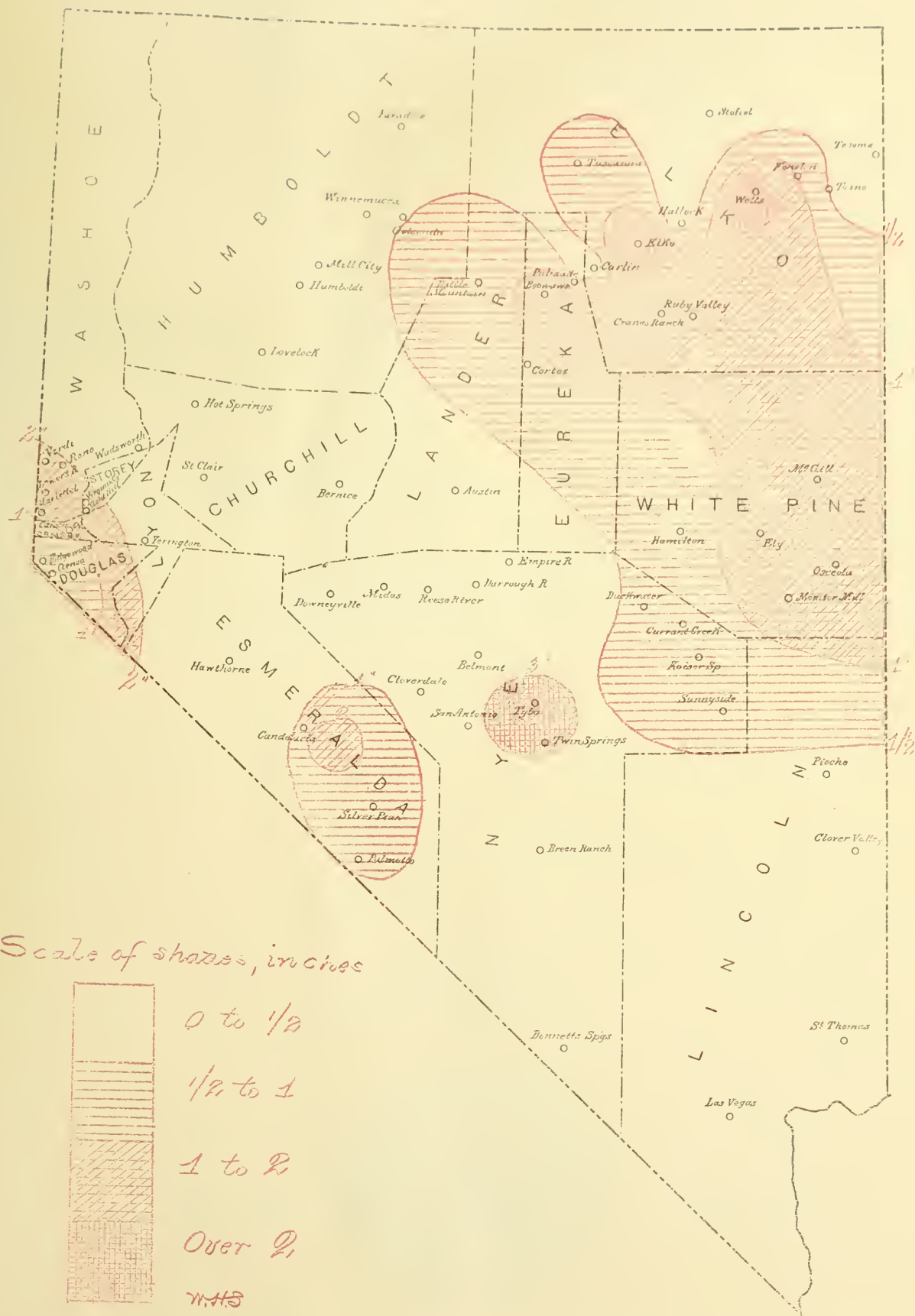
CLIMATE AND CROPS: NEVADA SECTION.

AUGUST, 1899.

[illegible]

T indicates trace. *Precipitation included in that of following day.

TOTAL PRECIPITATION FOR AUGUST, 1899.



to crops is reported. In Elko county, heavy grain was badly lodged by high winds, and cut hay lying in the fields was damaged some by the rain. The week has been favorable for plant growth, and the prospects are more encouraging since the occurrence of the heavy and well-distributed rains. The first crop of alfalfa is in stack, and the second crop will soon be ready to cut; the yield of the first crop is generally satisfactory in most sections. In Lincoln county the third crop of alfalfa is being cut and stacked. The harvest of wheat and barley has commenced in the southern and western sections with indications of an average yield. The vegetable crops are reported in good condition and growing nicely.

Week ending August 14th—The weather during the past week has been unseasonably cool, but in other respects the conditions have been very favorable for harvesting work and the growth of late crops. The sunshine was sufficient to bring out the good effects of the recent rains, and there has been a noticeable improvement in crops and ranges all over the State. The grain harvest is nearing completion in the southern and western districts, and about to commence in in the central, eastern and northern sections. Reports from all parts of the State are very favorable, and indicate that the yield of grain and hay will be fully up to the average of previous years.

Week ending August 21st—Abnormally cool weather for August prevailed throughout the State during the past week, the temperature ranging from 3 to 10 degrees below normal, with heavy frost on two or three mornings. Heavy thunder showers occurred on the 16th, 17th and 18th, being heaviest over the western and northern sections. Considerable snow fell on the higher mountains during the week. The cool, cloudy weather during the week has been favorable to the

ranges, meadows and all kinds of vegetation. The frost did considerable damage to potatoes, corn, cucumbers, beans, etc., while the rains and cool cloudy weather retarded the ripening of grain in northern districts. The grain harvest is practically finished in the southern and western sections, fairly well advanced in the eastern and central districts, and just beginning in the extreme northern portion of the State. In portions of Nye and White Pine counties, the yield of grain promises to be a little short of an average crop. The cutting of the second crop of alfalfa is progressing with indications of a fair yield in most districts.

Week ending August 28th—The temperature averaged about six degrees daily below the normal. The days have been moderately warm, but the nights were unusually cold, the temperature falling to freezing and below in many districts throughout the State. Severe frosts occurred during the early part of the week, being especially destructive in eastern and northern sections. There was about the usual amount of sunshine and practically no precipitation. The latter part of the week was somewhat windy, and slightly warmer. The weather conditions have been favorable for haying, harvesting, threshing and general outdoor work. The heavy frosts during the early part of the week played havoc with the grain and vegetable crops in various parts of the State. The greatest damage was done in Elko county, where potatoes and tender vines were cut to the ground and some unripe grain frozen and probably destroyed. In most districts the wild hay is about all cut and stacked, and farmers are now busy securing the second crop of alfalfa which is turning out much better than expected. Threshing is in progress with satisfactory results. Grain is ripening slowly on account of prevailing cool weather.

CARSON CITY, NEVADA :

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

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JUNE

UNIVERSITY OF NEVADA

U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR SEPTEMBER, 1899.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

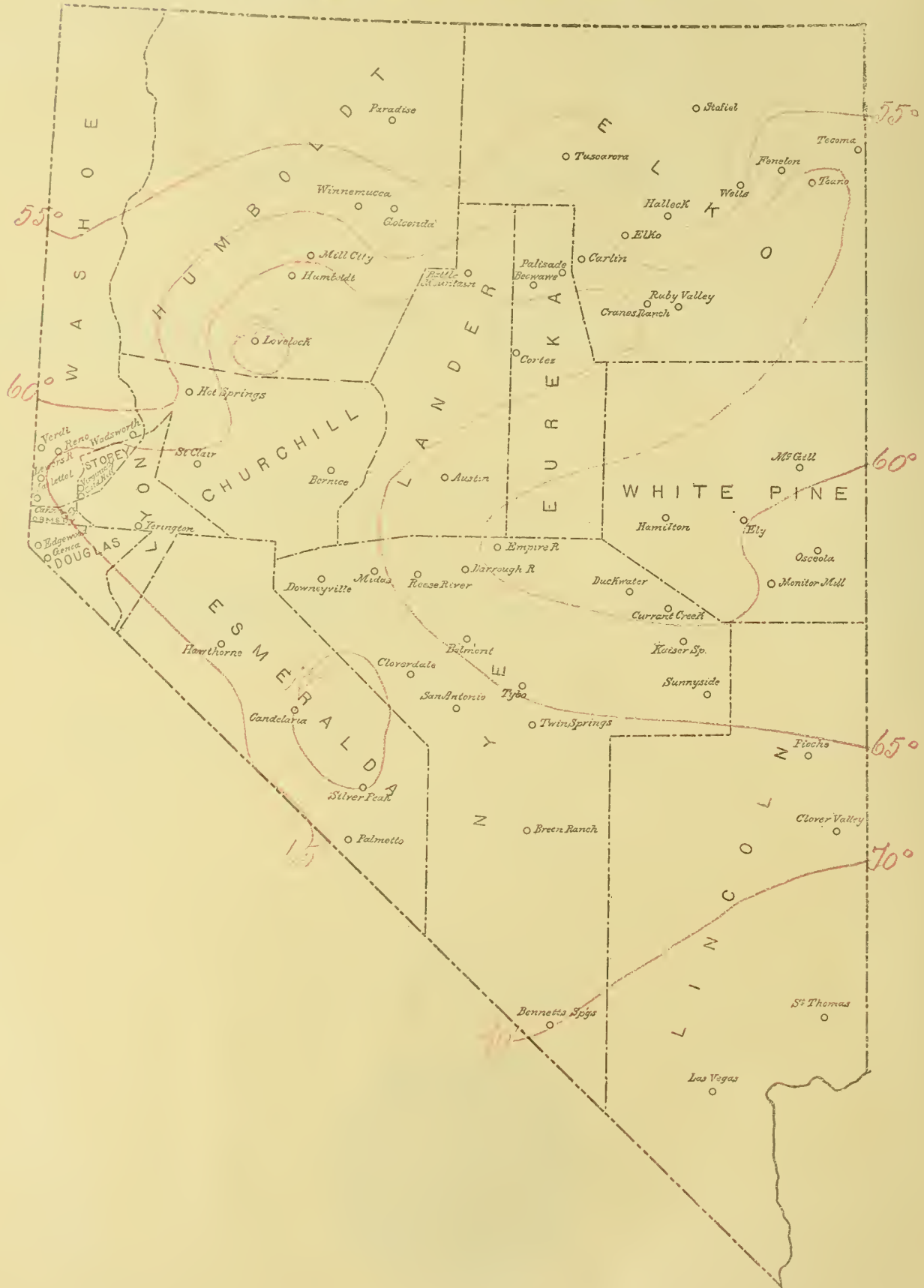
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR SEPTEMBER, 1899.



U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION,

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL. XIII.

CARSON CITY, NEVADA.

No. 9.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the Weather Bureau stations at Carson City and Winnemucca, was 30.02 inches.

The highest pressure, 30.29 inches, was recorded at Carson City, on the 16th, and the lowest, 29.70 inches, at Winnemucca, on the 2d; absolute range of pressure for the State, 0.59 inches.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the records of thirty-three stations, was 63.0 degrees, or about 2.4 degrees above normal.

By sections, the mean was: Northern, 61.6 degrees; southern, 67.4 degrees.

The highest monthly mean was 71.4 degrees, at Silver Peak, Esmeralda county.

The lowest monthly mean was 53.8 degrees, at Wells, Elko county.

The highest temperature recorded during the month was 98 degrees, at Silver Peak, Esmeralda county, on the 1st.

The lowest temperature recorded during the month was 24 degrees, at Wells, Elko county, on the 3d.

The absolute range of temperature for the State was 74 degrees.

The greatest local daily range of temperature at stations equipped with self-registering instruments was 55 degrees, at Wells, Elko county, and Empire Ranch, Nye county, on the 24th, and the least, 9 degrees, at Las Vegas, Lincoln county, on the 15th.

Precipitation—Inches and Hundredths.

The precipitation for the State averaged 0.05 inches which is about 0.37 inches below normal.

By sections, the average was: Northern, 0.05 inches; southern, 0.00 inches.

The greatest monthly amount recorded was 0.40 inches, at Fenelon, Elko county, and the least monthly amount, none, at several stations.

The greatest amount recorded in any twenty-four consecutive hours was 0.40 inches, at Fenelon, Elko county, on the 1st, and the least, none, at several stations.

Wind and Weather.

The prevailing direction of the wind was from the west.

The total movement of the wind at Carson City was 3,677 miles, and at Winnemucca, 5,545 miles. The maximum velocity at Carson City was 36 miles per hour, from the west,

on the 2d, and at Winnemucca, 17 miles per hour, from the southwest, on the 1st.

The average number of clear days was 24; partly cloudy, 3; cloudy, 3; days on which .01 of an inch or more precipitation occurred, 0.3.

OBSERVERS' REMARKS.

EMPIRE RANCH—Heavy thunderstorm on the 1st of the month. Miss BESSIE POTTS.

MARTIN'S RANCH (near Gardnerville) The month has been marked by unusually high temperature. All crops but potatoes have been secured and thrashing is nearly finished. J. H. MARTIN.

RENO—Heat lightning in the east on the 1st and 2d. High wind from the south during night of 2d. Smoke from forest fires on the 11th and 12th, and also from the 21st to 28th. Light frost night of 14th. Light thunderstorm on 26th. High wind on the afternoon of the 29th from the west. SAMUEL B. DOTEN.

GENERAL AND PERSONAL.

Mr. J. M. Stafford, a public-spirited citizen of Silver Peak, Esmeralda county, has kindly volunteered to act as a voluntary observer at that place, relieving Mr. Chas. G. Fogg, who has changed his residence to another part of the State. Mr. Stafford's first report appears in this issue.

Arrangements are now being made for the establishment of a voluntary observing station at White Rock, Elko county. White Rock is the headquarters of the Western Shoshone Indian Reservation, which is in the northwestern portion of Elko county, close to the Idaho line.

REVIEW OF WEATHER AND CROP CONDITIONS DURING SEPTEMBER.

Week ending September 4th—Warm days and unusually cold nights prevailed in all districts during the past seven days. Light and unimportant showers occurred on Friday in a few localities. The weather conditions during the week have been highly favorable to the growing and maturing crops and for harvest work in the hay and grain fields. Reports indicate that a great deal of unripe wheat was so badly damaged by the frosts of the previous week that it will probably be cut for hay. The second crop of alfalfa, which is now being cut, promises to be unusually light in the majority of districts, the shortage in yield being attributed to a lack of moisture. Harvesting is progressing satisfactorily in all sections, with indications that all of the hay and grain will be in the stack before the middle of the month. Thrashing is in progress, and so far grain is yielding pretty close to the usual average, and in a few instances a little above it. The condition of the vegetable crops has been much improved since the return of warm weather.

Week ending September 11th—The week ending September 11th was unseasonably cool until Saturday, when the weather became very much warmer. Generally clear weather prevailed throughout the week. In the central, eastern and northern sections, frost occurred nearly every night, but owing to the advanced stage of vegetation no damage of any consequence is reported. Conditions during the week have been exceptionally favorable for harvest work and the maturing of late crops. Farmers are now busy securing the second crop of alfalfa which is disappointing in yield on account of

Continued on page 8.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR SEPTEMBER, 1899.

Stations.	Day of Month.																															Monthly Means.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
NORTHERN SECTION.																																
Austin	Max. 85	80	73	72	74	77	80	79	83	88	88	85	82	72	72	83	88	89	90	90	86	86	85	87	87	89	85	85	86	80	77	82.5
Carson City	Min. 48	49	56	58	40	34	34	34	32	35	38	47	44	40	33	33	36	38	39	40	39	38	38	35	35	38	38	36	38	47	39.3	
Carson City (W. B.)	Max. 52	56	56	44	44	39	38	38	38	42	45	53	50	47	37	35	44	46	48	48	46	46	44	41	41	41	41	43	42	43	54	44.9
Elko	Max. 81	82	81	78	76	79	78	76	79	81	84	86	82	76	79	78	76	80	76	80	78	76	74	80	81	82	78	79	76	81	79.3	
Ely	Min. 42	40	39	34	35	32	31	33	36	34	32	34	37	45	32	33	36	33	40	34	35	33	38	34	36	39	40	43	38	53	36.0	
Lewers' Ranch	Max. 84	80	70	69	71	76	79	79	83	86	89	83	79	68	70	80	85	89	90	89	84	84	85	87	88	88	83	85	78	75	78.1	
Martin's Ranch	Min. 56	56	40	48	40	26	38	39	40	44	47	54	49	37	36	37	42	44	47	47	47	45	45	45	45	45	45	45	52	52	44.7	
Martin's Ranch	Max. 80	82	73	72	72	75	76	76	80	84	83	80	72	70	77	84	85	85	87	86	86	82	83	85	84	82	80	79	79	80.2		
Monitor Mill	Min. 50	54	50	57	39	37	38	35	35	37	40	38	42	41	34	32	39	40	42	43	42	40	41	38	39	48	44	40	48	43	45.3	
Monitor Mill	Max. 86	88	81	82	78	76	74	73	74	81	83	81	83	69	65	69	73	74	76	77	82	81	78	81	80	81	84	78	76	74	77.9	
McGill	Min. 49	54	43	45	39	36	35	36	35	42	46	40	38	34	33	34	36	40	41	42	40	41	38	39	40	42	43	37	40	38	39.9	
Reno	Min. 83	82	73	72	74	75	78	79	81	86	89	86	85	68	71	80	86	87	89	90	87	85	86	87	88	85	85	86	80	79	82.1	
St. Clair	Max. 53	53	52	43	42	38	40	41	41	44	47	52	52	40	39	40	46	67	48	50	47	44	45	44	44	46	52	43	46	45	47	46.2
Tuscarora	Min. 80	84	78	70	65	68	65	69	77	78	82	81	78	74	65	72	77	79	76	80	80	78	76	79	78	79	69	69	67	71	61	74.2
Wells	Min. 48	34	57	45	45	33	35	36	39	45	45	43	39	37	34	34	44	47	42	47	50	45	45	41	43	41	41	41	41	41	41.9	
Winnemucca	Max. 85	84	77	75	70	70	74	78	80	81	84	85	78	66	65	70	75	80	82	82	80	79	76	80	78	80	78	79	77	70	77.3	
Winnemucca	Min. 48	55	24	40	35	29	28	29	30	31	30	50	20	30	29	28	30	32	30	30	29	31	29	25	28	29	30	25	25	28	30.2	
Winnemucca	Max. 82	86	73	74	70	73	74	76	81	87	89	88	76	62	72	80	84	87	87	89	84	83	84	86	89	87	86	84	83	77	81.1	
Winnemucca	Min. 44	53	49	47	45	41	42	43	38	45	36	46	54	39	30	35	37	36	40	40	42	40	37	37	39	46	45	39	35	39	42	41.5
SOUTHERN SECTION.																																
Candelaria	Max. 90	90	84	84	80	83	89	81	85	87	89	87	87	70	69	83	86	88	90	92	91	88	88	89	91	90	87	93	91	89	86.4	
Empire Ranch	Min. 59	55	50	45	46	46	45	49	49	50	55	56	54	43	40	44	50	55	44	56	54	56	54	55	54	57	52	54	55	51	51.6	
Empire Ranch	Max. 82	81	80	80	75	74	80	81	80	81	83	83	83	76	61	64	77	79	81	82	82	81	82	86	80	80	79	78	79	79	79.3	
Hawthorne	Min. 40	38	40	38	39	32	34	33	32	33	34	38	37	34	30	32	34	35	36	35	34	30	30	31	32	34	35	34	33	34	34.5	
Hawthorne	Max. 86	93	79	80	76	75	79	78	82	86	87	87	88	79	70	80	85	87	88	89	85	84	85	85	84	84	83	84	89	81	81	80.3
Las Vegas	Min. 64	57	59	49	49	49	46	54	48	48	54	57	56	52	44	41	47	49	56	51	55	52	52	50	51	55	51	50	48	53	51.4	
Las Vegas	Max. 94	85	85	84	84	85	80	81	85	82	84	85	82	80	75	78	81	78	82	78	82	82	78	90	90	80	81	82	81	81	85	82.3
Midas	Min. 62	62	74	59	59	61	52	60	60	60	67	65	62	64	66	58	53	57	58	62	60	61	61	60	57	60	61	51	54	60	60.2	
Midas	Max. 94	85	85	84	84	85	80	81	85	82	84	85	82	80	75	78	81	78	82	78	82	82	78	90	90	80	81	82	81	81	85	82.3
Palmetto	Min. 62	62	74	59	59	61	52	60	60	60	67	65	62	64	66	58	53	57	58	62	60	61	61	60	57	60	61	51	54	60	60.2	
Palmetto	Max. 88	83	80	84	78	81	82	80	82	83	83	87	87	76	68	77	85	87	88	90	89	85	86	85	85	89	89	85	88	89	84.0	
Panaca	Min. 50	47	50	38	30	34	38	38	34	37	37	47	47	38	40	31	31	31	38	44	45	43	45	44	39	41	46	41	39	44	43	50.6
Panaca	Max. 98	98	92	91	90	88	89	89	90	93	92	94	93	79	76	86	92	94	96	97	97	93	95	95	95	97	95	93	93	95	91	92.0
Silver Peak	Min. 60	62	47	49	49	51	53	49	51	53	53	60	52	53	44	44	47	49	46	50	49	53	49	45	51	51	54	51	47	50	50	50.7
Sodaville	Max. 95	95	86	88	94	95	96	85	90	91	94	92	91	80	86	86	90	92	93	95	94	91	90	92	94	92	94	92	91	90	89	91.5
Sodaville	Min. 63	61	49	59	51	51	52	50	50	46	47	52	58	54	50	48	48	47	46	47	46	46	48	46	46	45	48	51	50	47	46	49.9
Tybo	Max. 82	85	82	80	80	81	82	83	84	84	85	84	78	72	73	79	84	86	85	86	85	86	84	82	83	82	82	81	80	78	81.9	
Tybo	Min. 60	53	55	49	50	45	46	45	45	48	52	55	56	42	46	42	46	49	50	51	52	53	50	51	56	55	51	61	67	52	51.1	
Palmetto	Max. 83	83	80	84	78	81	82	80	82	83	83	87	87	76	68	77	85	87	88	90	89	85	86	85	85	89	89	85	88	89	89	84.0
Panaca	Min. 50	47	50	38	30	34	38	38	34	37	37	47	47	38	40	31	31	31	38	44	45	43	45	44	39	41	46	41	39	44	43	50.6
Silver Peak	Max. 98																															

CLIMATOLOGICAL DATA FOR SEPTEMBER, 1899.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (inches).					Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.			
NORTHERN SECTION.																					
Austin—1	Lander	6,594	11																	M. D. Murphy	
Battle Mountain	Lander	4,514	28	65.6	-2.8	88	13	44	18		0.00	-0.24	0.00	0	0	27	0	3	N	Agent So. Pacific Co.	
Beowawe	Eureka	4,635	28	64.2	-1.2	92	2	49	15		0.00	-0.25	0.00	0	0	28	0	2	W	Agent So. Pacific Co.	
Carlin	Elko	4,897	28	63.3	-6.0	91	12	30	15		0.00	-0.27	0.00	0	0	16	3	11	SW	Agent So. Pacific Co.	
Carson City—1	Ormsby	4,660	19	60.9	+0.5	90	19	32	9	51	0.00	-0.28	0.00	0	0	25	5	0	W	C. W. Friend	
Carson City (W. B.)—1	Ormsby	4,720	11	62.9	+2.5	90	19	35	16	48	0.00	-0.28	0.00	0	0	24	4	2	W	U. S. Weather Bureau	
Clover Valley	Elko	6,000									0.28		0.28	0	1	22	7	1		A. H. Wiseman	
Crane's Ranch	Elko	5,350	11								0.00	-0.32	0.00	0	0	27	3	0	W	W. T. Crane	
Elko—1	Elko	5,063	28	57.6	-2.6	86	12	31	7		T	-0.20	T	0	0	26	4	0	NE	C. H. Sproule	
Elko	Elko	5,063		57.2	-2.4	90	2	38	15	52	0.00	-0.20	0.00	0	0	21	0	9	W	Agent So. Pacific Co.	
Ely—1	White Pine	6,000	11	58.8	+4.2	86	2	33	9	49	0.16	-0.40	0.00	0	2	17	5	8	S	M. B. Garaghan	
Fenelon	Elko	6,128	11	59.5	-1.7	85	25	40	14		0.40	0.00	0.40	0	1	25	1	4	W	Agent So. Pacific Co.	
Golconda	Humboldt	4,392	20	58.0	-1.3	84	12	40	8		T	-0.29	T	0	0	23	3	4		Agent So. Pacific Co.	
Halleck	Elko	5,229	26	55.4	-1.6	95	14	29	28		0.00	-0.12	0.00	0	0	20	1	9	W	Agent So. Pacific Co.	
Hot Springs	Churchill	4,072	11	62.5	-3.2	90	11	40	28		0.00	-0.10	0.00	0	0	22	0	8	NW	Agent So. Pacific Co.	
Humboldt	Humboldt	4,236	27	66.6	-4.5	88	19	47	15		0.01	-0.15	0.01	0	1	28	1	1	NW	Agent So. Pacific Co.	
Lee	Elko										0.16		0.16	0	1	23	7	1	SW	Miss Jennie Williams	
Lewers' Ranch—1	Washoe	5,200	11	61.4	-0.2	90	19	36	6	47	0.00	-0.81	0.00	0	0	27	3	0	SW	E. Lewers	
Lovelock	Humboldt	3,977	7	68.9	-3.0	92	23	49	17		0.00	-0.23	0.00	0	0	30	0	0	N	Agent So. Pacific Co.	
Martin's Ranch—1	Douglas	4,830		62.8		87	20	32	16	46	0.00		0.00	0	0	29	1	0	SW	J. H. Martin	
McGill—1	White Pine	5,200																		Mrs. W. N. McGill	
Mill City	Humboldt	4,225	10	63.9	+1.7	95	20	40	16		0.00	-0.20	0.00	0	0	18	10	2	W	Agent So. Pacific Co.	
Monitor Mill—1	White Pine	6,400		58.9		88	2	33	15	45	0.16		0.09	0	2	18	5	7	SW	Jas. B. Orr	
Palisade	Eureka	4,821	17	63.5	+2.2	89	25	44	19		0.00	-0.34	0.00	0	0	23	3	4		Agent So. Pacific Co.	
Reno—1	Washoe	4,484	28	64.2	+3.2	90	20	38	6	43	T	-0.16	T	0	0	25	4	1	W	State University	
St. Clair—1	Churchill	4,000	7																	C. Allen	
Tecoma	Elko	4,812	21	57.4	-4.9	95	2	42	17		0.00	-0.30	0.00	0	0	26	0	4	W	Agent So. Pacific Co.	
Toano	Elko	5,975	29	65.9	+5.2	88	1	35	15		0.00	-0.21	0.00	0	0	26	0	4	S	Agent So. Pacific Co.	
Tuscarora—1	Elko	6,400	8	58.0	+1.7	84	2	34	2	50	0.00	-0.32	0.00	0	0	20	6	4	N	J. D. Geiselman	
Verdi	Washoe	4,895	9	63.0	+4.1	88	18	40	7		0.00	-0.57	0.00	0	0	21	0	1	SW	Agent So. Pacific Co.	
Wadsworth	Washoe	4,077	27	64.1	-1.9	88	9	36	8		0.00	-0.18	0.00	0	0	30	0	0	W	Agent So. Pacific Co.	
Wells—1	Elko	5,628	28	53.8	-6.4	85	1	24	3	55	0.29	-0.04	0.20	0	1	27	2	1	SW	A. Fisher	
Wells	Elko	5,623		55.4	-6.4	90	25	32	14		0.04		0.04	0	1	13	6	11	SW	Agent So. Pacific Co.	
Winnemucca—1	Humboldt	4,432	20	61.0	+1.3	89	11	30	15	53	0.02	-0.31	0.02	0	1	21	6	3	SW	U. S. Weather Bureau	
SOUTHERN SECTION.																					
Bunkerville	Lincoln																			Miss Emily J. Lee	
Candelaria—1	Esmeralda	5,783	9	69.0	+4.3	93	28	40	15	44	T	-0.41	T	0	0	30	0	0	W	R. F. Laffoon	
Empire Ranch—1	Nye	6,990	6	56.9	-5.2	99	3	30	15	55	T	-0.08	T	0	0	25	1	4	N	Miss Bessie Potts	
Hawthorne—1	Esmeralda	4,569	11	65.8	-0.0	93	2	41	16	41	0.00	-0.23	0.00	0	0	22	2	6	NW	C. P. Mengel	
Las Vegas—1	Lincoln	2,074	4	71.2	+2.5	94	1	51	28	32	0.00	-0.01	0.00	0	0	28	2	0	W	E. B. Kiel	
Midas—1	Nye	7,200																			
Palmetto—1	Esmeralda	6,500	9	67.3	+9.2	90	20	30	5	49	T	-0.50	T	0	0	29	1	0	SE	Wm. Oothout, Jr.	
Panaca	Lincoln																				
Silver Peak—1	Esmeralda	4,382	3	71.4	+1.6	98	1	44	15	50	0.00	-0.00	0.00	0	0	29	6	1	SW	J. M. Stafford	
Sodaville—1	Esmeralda	4,665		70.7		96	7	44	16	49	T		T	0	0	17	7	6	N	T. G. Watterson	
Tybo—1	Nye	6,500	7	66.5	+5.7	86	18	42	14	39	T	-0.13	T	0	0	21	9	0	W	Jas. B. Gilmore	
Means or Extremes				63.0	+2.4	98	1	24	3	47	0.05	-0.37	0.40	0	0.3	24	3	3	W	Means or Extremes	

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

Thunderstorms—Reno, 26; Empire Ranch, 1; Candelaria, 1; Fenelon, 1; Wells, 1.

Light Frost—Elko, 4, 7, 15, 16; Reno, 15; Palmetto, 5, 17, 18; Carson City, 6, 7, 8, 9, 10, 15, 16, 17, 24; Crane's Ranch, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, 18, 22.

Killing Frost—Wells, 8, 9, 10, 11.

High Winds—Reno, 3, 29; Candelaria, 14; Carson City, 2.

Dense Smoke—Reno, 21, 22, 25, 27; Carson City, 18, 19, 20, 21, 22, 25, 27, 28, 29, 30.

Dense Haze—Carson City, 13.

Hail—Wells, 14.

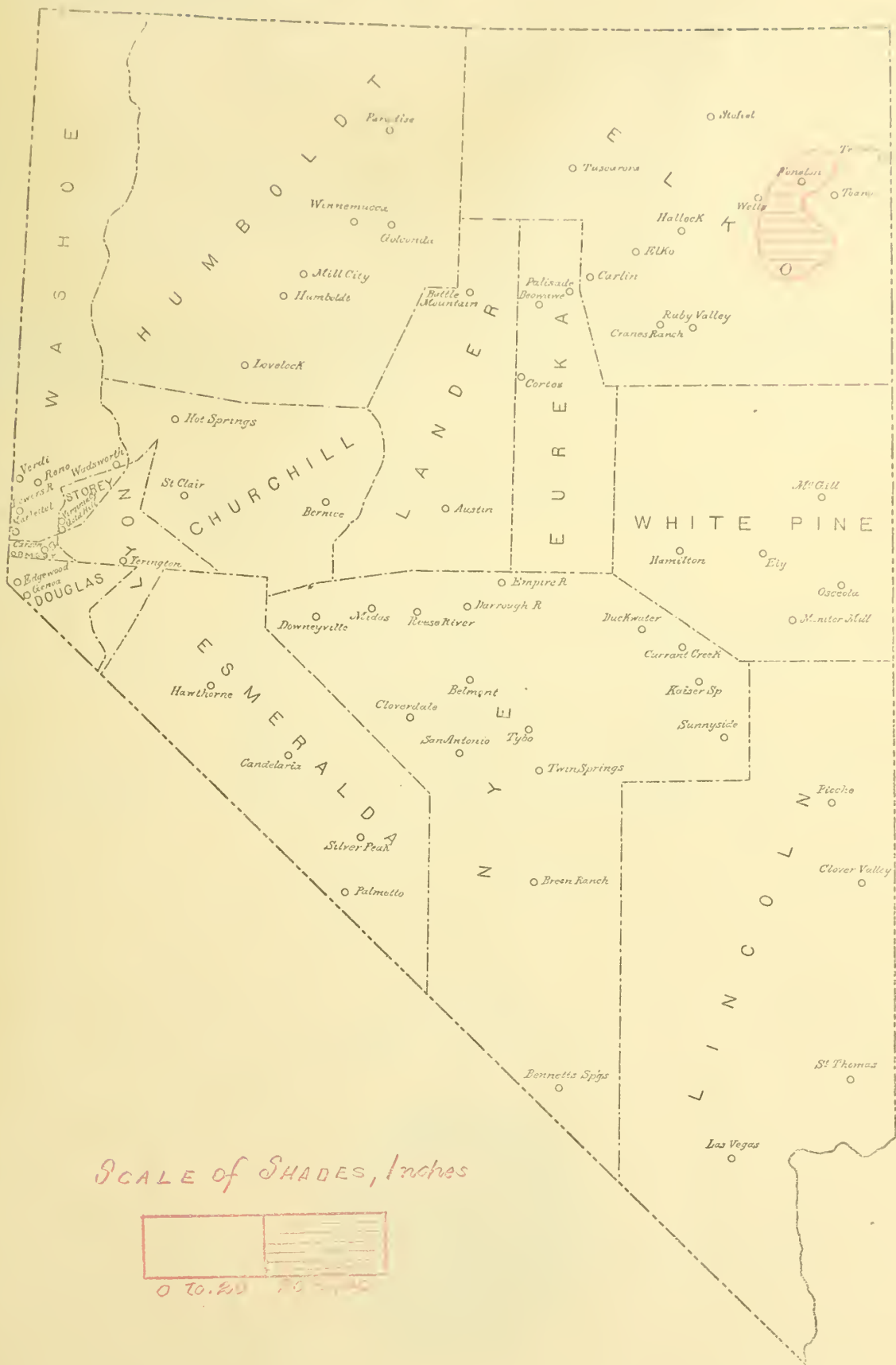
Ice—Lee, 3, 5, 8, 9, 10, 13, 14, 19, 23, 25, 27.

CLIMATE AND CROPS: NEVADA SECTION.

SEPTEMBER, 1899.

T indicates trace. *Precipitation included in that of following day.

TOTAL PRECIPITATION FOR SEPTEMBER, 1899.



SCALE of SHADES, inches



0 TO 20 20 TO 40

frost and drought. Late oats and barley promise a fair yield, while potatoes will be fully up to the average of previous years. A fair crop of wild hay has been secured in good condition. The harvesting of hay and grain is practically finished, except in a few late districts in the eastern and northern portions of the State where the work is progressing. Thrashing returns so far are very satisfactory, the yield of grain being much better than was expected.

Week ending September 18th—Warm days and cool frosty nights characterized the weather of the week ending September 18th. Generally clear weather prevailed throughout the week. There was about the normal amount of sunshine. The weather conditions were all that could be desired for harvesting, thrashing and the advancement of late crops. The harvesting of hay and grain is practically over except in a few districts in the extreme northern portion of the State where the work is progressing. Thrashing is in progress with yield and quality of grain about the average for the State at large. Potatoes are maturing rapidly and will soon be ready to harvest, with indications of a good yield in most districts. In Lincoln county an average fourth crop of

alfalfa is being cut and stacked in good condition. In some districts the ranges are in poor condition and stock is losing flesh on account of a scarcity of feed.

ERRATA.

March, 1899—Mean temperature at Mill City should be 40.1.

April, 1899—Mean temperature at Carson City (Carson Observatory) should be 48.2. Minimum temperature at Hawthorne should be 24, on the 27th and 28th. Total precipitation at Reno should be 0.21 inches.

May, 1899—Total precipitation at Ely should be 1.95 inches.

June, 1899—Mean of 2 p. m. temperature at Carlin should be 66.9, and mean temperature for the month, 55.8.


July, 1899—Mean temperature at Reno should be 69.6.

August, 1899—Total precipitation at Battle Mountain should be 0.81 inches, and at Wells (Agent Southern Pacific Co.), 1.12 inches.

COMPARATIVE PRECIPITATION AND TEMPERATURE DATA FOR SEPTEMBER DURING THE PAST ELEVEN YEARS.

Year.	Mean Temperature.	Average precipitation, inches and hundredths.
1889-----	61.7-----	0.55-----
1890-----	64.2-----	0.81-----
1891-----	58.9-----	0.94-----
1892-----	62.8-----	0.09-----
1893-----	57.5-----	0.51-----
1894-----	58.8-----	0.35-----
1895-----	59.9-----	0.27-----
1896-----	58.3-----	0.35-----
1897-----	60.4-----	0.16-----
1898-----	61.1-----	0.20-----
1899-----	63.0-----	0.05-----

CARSON CITY, NEVADA:

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1899

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR OCTOBER, 1899.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

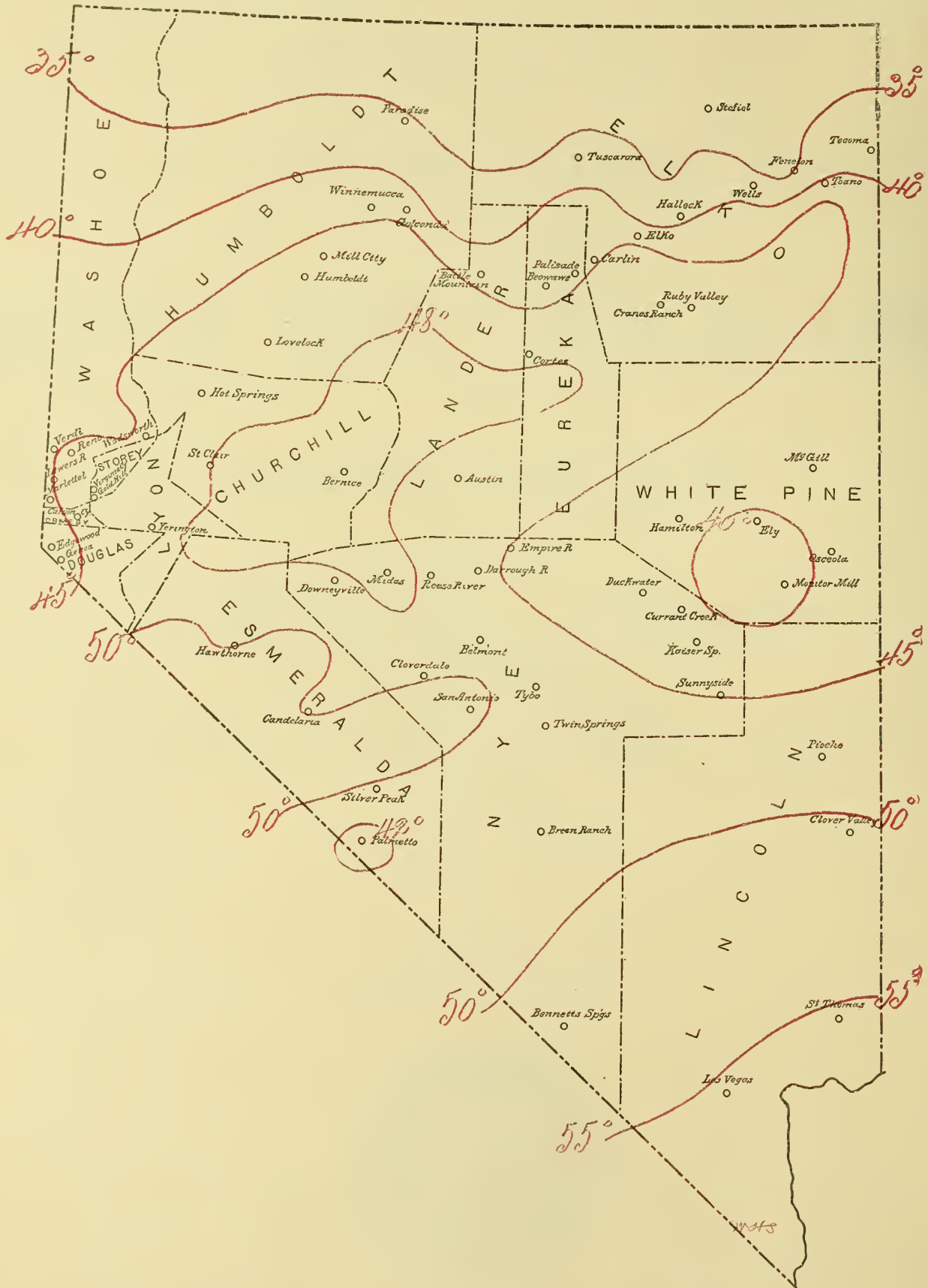
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR OCTOBER, 1899.



U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL. XIII.

CARSON CITY, NEVADA.

No. 10.

SUMMARY OF WEATHER CONDITIONS.

With the exception of two short periods of moderately warm weather from the 6th to the 9th and the 18th to the 20th, the month was much colder than usual. The mean temperature, 45.5 degrees, is about 3 degrees below normal, and the lowest for October in the past eleven years. The highest temperatures were generally recorded on the 6th, and lowest on the 14th and 15th.

Over the greater part of the State the precipitation was slightly above normal, the excess being greatest in Washoe, White Pine, Elko and Ormsby counties, and the deficiency most pronounced in portions of Esmeralda and Humboldt counties. The days with rain or snow were generally the 11th, 12th, 13th, 14th, 21st, 22d and 23d. The chief feature of the month was the heavy snowfall in western districts during the night of the 11th. It averaged from 3 to 5 inches in the valleys, and probably fell to a depth of at least 18 inches on the mountains.

The weather throughout the month was very favorable for thrashing, baling hay, digging potatoes and general farm work.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the Weather Bureau Stations at Carson City and Winnemucca, was 30.05 inches.

The highest pressure, 30.44 inches, was recorded at Winnemucca, on the 26th, and the lowest, 29.56 inches, at Winnemucca, on the 10th; absolute range of pressure for the State, 0.88 inches.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the records of thirty-two stations, was 46.3 degrees, or about 2.8 degrees below normal.

By sections, the mean was: Northern, 45.4 degrees; southern, 49.0 degrees.

The highest monthly mean was 55.6 degrees, at Las Vegas, Lincoln county.

The lowest monthly mean was 35.2 degrees, at Fenelon, Elko county.

The highest temperature recorded during the month was 89 degrees, at Silver Peak, Esmeralda county, on the 1st.

The lowest temperature recorded during the month was 4 degrees, at Fenelon, Elko county, on the 14th.

The absolute range of temperature for the State was 85 degrees.

The greatest local daily range of temperature at stations equipped with self-registering instruments was 60 degrees, at Elko, Elko county, on the 3d, and the least, 3 degrees, at Tybo, Nye county, on the 13th.

Precipitation—Inches and Hundredths.

The precipitation for the State averaged 0.72 inches, which is 0.20 inches above normal.

By sections, the average was: Northern, 0.82 inches; southern, 0.36 inches.

The greatest monthly amount recorded was 2.45 inches, at Lewers' Ranch, Washoe county, and the least monthly amount, none, at Hot Springs, Churchill county.

The greatest amount recorded in any twenty-four consecutive hours was 1.35 inches, at Wells, Elko county, on the 22d, and the least, none, at Hot Springs, Churchill county.

Wind and Weather.

The prevailing direction of the wind was from the west.

The total movement of the wind at Carson City was 4,368 miles, and at Winnemucca, 6,723 miles.

The maximum velocity at Carson City was 38 miles per hour, from the southwest, on the 19th, and at Winnemucca, 48 miles per hour, from the south, on the 19th.

The average number of clear days was 15; partly cloudy, 6; cloudy, 10; days on which .01 of an inch or more of precipitation fell, 3.

COMPARATIVE PRECIPITATION AND TEMPERATURE DATA FOR OCTOBER DURING THE PAST ELEVEN YEARS.

Year.	Mean Temperature.	Average precipitation, Inches and hundredths.
1889-----	52.2-----	1.48
1890-----	50.5-----	0.26
1891-----	51.2-----	0.04
1892-----	47.5-----	0.32
1893-----	48.7-----	0.12
1894-----	51.7-----	0.33
1895-----	49.9-----	0.26
1896-----	50.3-----	0.24
1897-----	47.1-----	1.71
1898-----	45.9-----	0.23
1899-----	45.5-----	0.74

The normal temperature for October is 49.1 degrees; normal precipitation, 0.52 inches.

GENERAL AND PERSONAL.

The Chief of the Weather Bureau has authorized the establishment of a voluntary station in Duck Valley, Elko county, about twenty-five miles north of White Rock. The station will be in charge of Mr. H. J. Huff, of the U. S. Indian Service. The observations will be of great value in determining the climatology of the northern portion of Nevada and the southern portion of Idaho.

Arrangements have been made with Mr. L. Steiner, Postmaster, Austin, Nevada, for the distribution of the daily weather forecasts to the citizens of that place and vicinity. The Postmaster at Eureka has also been requested to cooperate with the Weather Bureau in the distribution of the forecasts at his station.

ERRATA.

In the September number of the Monthly Report the total precipitation at Candelaria should have been a trace, and the mean temperature at Lovelock, 64.7.

Monthly means.

[illegible]

CLIMATOLOGICAL DATA FOR OCTOBER, 1899.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).						Precipitation (inches).				Sky.				Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.		Number cloudy days.	Prevailing direction of wind.
NORTHERN SECTION.																			
Austin—1	Lander	6,591	11								T	-0.50	T	T	0	13	3	15	M. D. Murphy
Battle Mountain	Lander	4,511	28	44.2	-5.2	72	19	22	13		T	-0.42	T		0	14	0	17	Agent So. Pacific Co.
Beowawe	Eureka	4,695	28	43.1	-6.1	75	7	21	12						0	14	0	17	Agent So. Pacific Co.
Carlin	Elko	4,897	28	60.2	+16.7	86	8	31	27		0.87	-0.12	0.50		4	15	5	11	Agent So. Pacific Co.
Carson City—1	Ormsby	4,660	19	46.2	-3.7	80	6	20	29	51	0.85	+0.11	0.41	7.4	7	17	10	4	Agent So. Pacific Co.
																			C. W. Friend
Carson City (W. B.)—1	Ormsby	4,720	11	46.6	-3.3	78	6	22	15	45	0.63	+0.22	0.30	6.3	5	11	12	8	U. S. Weather Bureau
Clover Valley	Elko	6,000									1.14		0.18	6.0	5	11	8	12	A. H. Wiseman
Crane's Ranch	Elko	5,350	11								1.10	+0.50	0.60		2	11	9	11	W. T. Crane
Elko—1	Elko	5,063	28	47.0	+4.4	78	3	15	14	60	0.75	+0.19	0.60	1.5	3	14	17	0	C. H. Sproule
Elko	Elko	5,063		41.3		73	6	22	14		0.40		0.30	1.0	2				Agent So. Pacific Co.
Ely—1	White Pine	6,000	11	41.0	-2.8	75	1	13	11	48	2.08	+1.39	0.80	8.0	6	11	8	12	M. B. Garaghan
Fenelon	Elko	6,128	11	35.2	-8.8	78	6	4	14		0.30	-0.53	0.20	3.0	3	13	3	15	Agent So. Pacific Co.
Golconda	Humboldt	4,392	20	46.0	-6.2	68	8	28	25		0.20	-0.20	0.20	2.0	1	11	1	19	Agent So. Pacific Co.
Halleck	Elko	5,229	26	39.1	-5.1	83	6	16	13		0.50	-0.06	0.50	5.0	1	10	0	21	Agent So. Pacific Co.
Hot Springs	Churchill	4,072	11	55.5	-0.8	85	2	30	15		0.00	-0.02	0.00	0.0	0	22	0	9	Agent So. Pacific Co.
Humboldt	Humboldt	4,236	27	47.0	-2.8	75	6	27	27		1.10	+0.71	0.40	11.0	4	17	2	12	Agent So. Pacific Co.
Lee	Elko										1.64		0.60	13.5	8	8	10	13	Miss Jennie Williams
Lewers' Ranch—1	Washoe	5,200	11	46.2	-5.6	78	6	17	15	40	2.45	+1.27	0.71	14.5	8	19	9	3	E. Lewers
Lovelock	Humboldt	3,977	7	47.1	-6.4	80	7	31	11		0.30	+0.14	0.10	0.4	3	17	5	9	Agent So. Pacific Co.
Martin's Ranch—1	Douglas	4,830		46.8		77	6	20	15	47	0.35		0.30	3.5	2	19	2	8	J. H. Martin
McGill—1	White Pine	5,200																	Mrs. W. N. McGill
Mill City	Humboldt	4,225	10	46.7	-5.0	80	5	25	26		0.60	+0.42	0.20	5.0	4	10	7	14	Agent So. Pacific Co.
Monitor Mill—1	White Pine	6,400																	Jas. B. Orr
Palisade	Eureka	4,821	17	45.8	-1.2	77	1	25	13		1.00	+0.42	0.70	0.5	4	14	0	17	Agent So. Pacific Co.
Reno—1	Washoe	4,484	28	47.4	-2.6	78	6	22	15	42	0.72	+0.53	0.68	6.8	2	13	12	6	State University
St. Clair—1	Churchill	4,000	7																C. Allen
Tecoma	Elko	4,812	21	38.2	-8.4	75	1	20	2		0.50	+0.10	0.50	T	1	15	0	16	Agent So. Pacific Co.
Toano	Elko	5,975	29	44.6	-1.7	78	21	26	14		0.40	-0.08	0.40	4.0	1	10	1	20	Agent So. Pacific Co.
Tuscarora—1	Elko	6,400	8	42.0	-3.8	70	6	18	12	38	1.24	+0.50	0.35	1.0	5	10	16	5	J. D. Geiselman
Verdi	Washoe	4,895	9	48.8	-0.2	86	3	24	31		2.10	+1.41	1.00	6.0	4	27	0	4	Agent So. Pacific Co.
Wadsworth	Washoe	4,077	27	44.9	-6.5	80	6	22	26		0.20	-0.9	0.20	T	1	25	5	1	Agent So. Pacific Co.
Wells—1	Elko	5,628	28	41.0	-5.0	72	6	10	4	56	1.35	+0.71	1.35	0.0	1	11	1	19	A. Fisher
Wells	Elko	5,623		38.4		75	6	20	2		0.20		0.20	2.0	1	6	0	25	Agent So. Pacific Co.
Winnemucca—1	Humboldt	4,432	20	44.4	-4.0	78	6	15	15	51	0.56	+0.03	0.35		5	10	8	13	U. S. Weather Bureau
SOUTHERN SECTION.																			
Bunkerville	Lincoln																		Miss Emily J. Lee
Candelaria—1	Esmeralda	5,783	9	49.6	-4.0	81	6	19	15	41	0.35	-0.18	0.30	0.5	2	26	0	5	R. F. Laffoon
Empire Ranch—1	Nye	6,990	6	44.2	-2.7	83	7	12	17	52	0.55	-0.46	0.25	5.5	3	20	3	8	Miss Bessie Potts
Hawthorne—1	Esmeralda	4,569	11	50.2	-4.0	78	5	21	15	38	0.09	-0.22	0.08	T	2	13	5	13	C. P. Mengel
Las Vegas—1	Lincoln	2,074	4	55.6	-1.8	83	6	31	14	31	0.28	+0.08	0.20	0.0	2	20	10	1	E. B. Kiel
Midas—1	Nye	7,200																	
Palmetto—1	Esmeralda	6,500	9	42.1	-5.9	81	1	13	12		1.05	+0.55	0.60	8.0	3	18	6	7	Wm. Oothout, Jr.
Panaca	Lincoln																		
Silver Peak—1	Esmeralda	4,382	3	52.6	-2.0	89	1	23	11	45	T		T	0.0	0	17	4	10	J. M. Stafford
Sodaville—1	Esmeralda	4,665		48.8		88	1	20	15	47	T		T	0.0	0	14	5	12	T. G. Watterson
Tybo—1	Nye	6,500	7	49.1	-0.6	78	1	17	12	34	0.57	+0.31	0.36	8.0	3	5	25	1	Jas. B. Gilmore
Means or Extremes				46.3	-2.8	89	1	4	14	60	0.72	+0.20	1.35	3.9	3	15	6	10	Means or Extremes

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

High Winds—Candelaria, 1, 13; Empire Ranch, 1, 18, 19, 21; Las Vegas, 10; Reno, 10, 19; Carson City, 19, 20, 21.

Killing Frosts—Carson City, 2, 3, 4, 5, 14, 15, 16, 17, 24, 25, 26, 27, 28, 29, 31;

Hawthorne, 15, 16, 23, 24, 26, 27; Las Vegas, 16; Palmetto, 3, 4, 11, 12, 13, 14, 15, 16, 23, 24, 25, 27, 30, 31; Reno, 2, 4; Wadsworth, 2, 3, 4, 10, 11, 12.

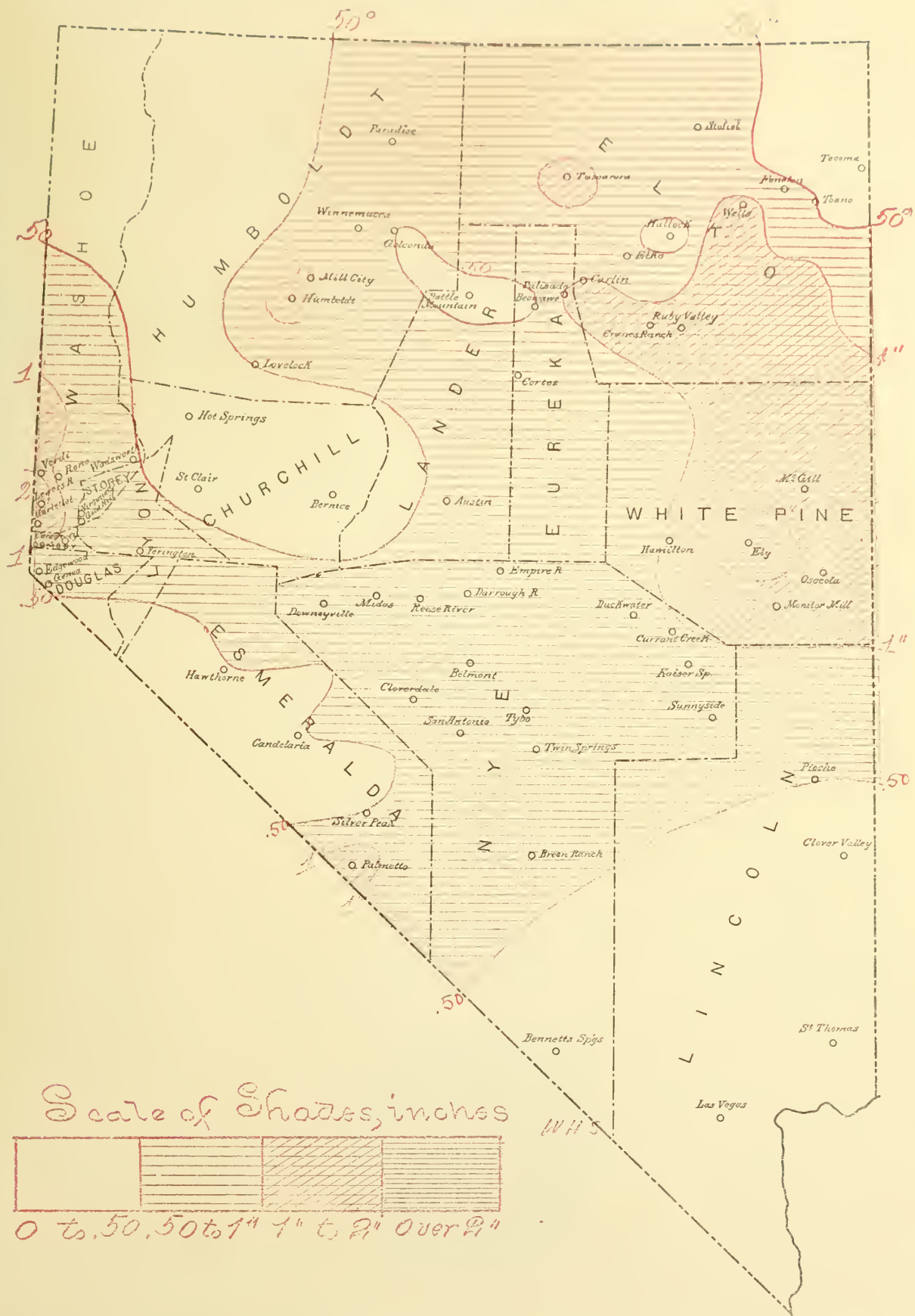
Lunar Halos—Carson City, 15, 16, 17.

Solar Halos—Carson City, 16, 26.

Day of Month.

T indicates trace. *Precipitation included in that of following day.

TOTAL PRECIPITATION FOR OCTOBER, 1899.



CARSON CITY, NEVADA :

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1899

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR JANUARY, 1900.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

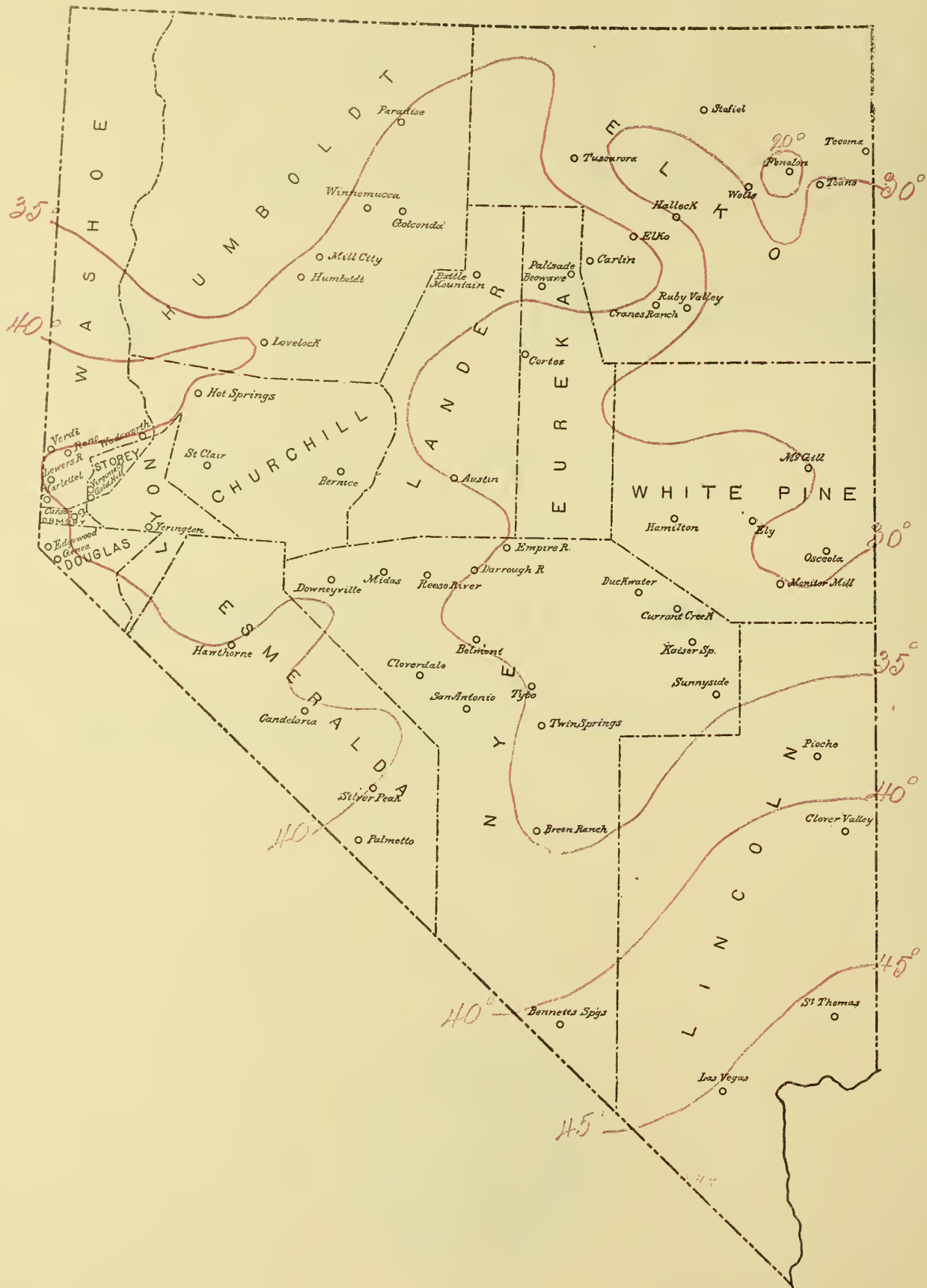
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR JANUARY, 1900.



U. S. DEPARTMENT OF AGRICULTURE.

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL. XIV.

CARSON CITY, NEVADA.

No. 1.

SUMMARY OF WEATHER CONDITIONS.

The weather of January was remarkably fine, mild and pleasant in all sections of the State. It was the warmest and dryest January in many years. The mean temperature for the month was 7.4 degrees above normal, and from 2 to 15 degrees higher than the mean of any previous January of which there is official record. There was a high percentage of sunshine, the weather being generally clear the greater part of the month.

The atmospheric pressure was relatively high throughout the month.

The average precipitation for the month was 0.42, or nearly an inch below normal. The deficiency was greatest throughout the western and southern sections, and least over a small area in Elko county.

The snowfall for the month was unusually light, the average depth for the State being only a trace.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the Weather Bureau stations at Carson City and Winnemucca, was 30.22 inches.

The highest pressure, 30.55 inches, was recorded at Winnemucca, on the 9th, and the lowest, 29.85 inches, at Carson City, on the 2d; absolute range of pressure for the State, 0.70 inches.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the records of thirty-five stations, was 35.7, or about 7.4 degrees above normal.

By sections, the mean was: Northern, 34.6 degrees; southern, 39.4 degrees.

The highest monthly mean was 45.4 degrees, at Las Vegas, Lincoln county.

The lowest monthly mean was 19.6 degrees, at Fenelon, Elko county.

The highest temperature recorded during the month was 71 degrees, at Candelaria, Esmeralda county, on the 13th.

The lowest temperature recorded during the month was -10 degrees, at Fenelon, Elko county, on the 10th.

The absolute range of temperature for the State was 81 degrees.

The greatest local daily range of temperature at stations equipped with self-registering instruments was 44 degrees, at Candelaria and Sodaville, Esmeralda county, on the 27th, and the least, 3 degrees, at Tuscarora, Elko county, on the 3d.

Precipitation—Inches and Hundredths.

The precipitation for the State averaged 0.42 inches, or about 0.91 inches below normal.

By sections, the average was: Northern, 0.37 inches; southern, 0.48 inches.

The greatest amount recorded was 1.72 inches, at Palisade, Eureka county, and the least monthly amount, a trace, at several stations.

The greatest amount recorded in any twenty-four consecutive hours was 1.00 inches, at Elko, Elko county, on the 3d, and the least, none, at many stations.

Wind and Weather.

The prevailing direction of the wind was from the southwest.

The total movement of the wind at Carson City was 3,210 miles, and at Winnemucca, 6,572 miles. The maximum velocity at Carson City was 26 miles per hour, from the southwest, on the 5th, and at Winnemucca, 37 miles per hour, from the west, on the 23d.

The average number of clear days was 16; partly cloudy, 5; cloudy, 10; days on which 0.01 of an inch or more of precipitation fell, 2.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR JANUARY DURING THE PAST ELEVEN YEARS.

Year.	Temperature			Average precipitation, inches and hundredths.
	Mean.	Highest.	Lowest.	
1890	20.4	52	-42	3.81
1891	27.6	68	-25	0.21
1892	26.7	73	-25	0.53
1893	30.4	63	-23	1.23
1894	28.0	70	-30	1.42
1895	25.9	60	-30	2.42
1896	33.9	79	-26	1.80
1897	30.2	65	-12	0.92
1898	20.4	63	-28	0.69
1899	31.8	65	-12	1.20
1900	35.7	71	-10	0.42

The normal temperature for January is 28.3 degrees; normal precipitation, 1.38 inches.

OBSERVERS' REMARKS.

BELMONT—No high winds; an unusually still month. Leaf buds on the cottonwood and balm-of-Gilead trees much swollen. Light pogonip on the 14th. Ice on the pond has been nearly 4 inches thick; none now. W. N. GRANGER.

CLOVER VALLEY—Very little snow in the mountains in this vicinity. A. H. WISEMAN.

EMPIRE RANCH—High wind on the 22d and 23d. Heavy fog on the 15th and 17th. MISS BESSIE POTTS.

LEE—The weather has been unusually warm for this time of the year. The roads are dusty in places, and the grass is sprouting on the hill side. MISS JENNIE WILLIAMS.

TECOMA—The weather has been very mild the whole of the month. W. T. ONYON.

TUSCARORA—Heavy rain on 2d, 3d, 14th and 16th. Heavy fog on the 13th, 14th, 15th, 16th, 17th and 20th. Stock are in first-class condition. Very little snow in the mountains.

Continued on page 8.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JANUARY, 1900.

[illegible]

CLIMATOLOGICAL DATA FOR JANUARY, 1900.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (inches).					Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.			
NORTHERN SECTION.																					
Battle Mountain	Lander	4,511	29	33.2	+5.8	43	3	23	14	---	T	-0.92	T	---	0	27	0	4	SW	Agent So. Pacific Co.	
Beowawe	Eureka	4,695	29	34.9	+8.9	55	17	15	9	---	0.00	-0.85	0.00	---	0	0	0	31	S	Agent So. Pacific Co.	
Carlin	Elko	4,897	29	31.9	+11.5	53	13	6	1	---	0.25	-0.87	0.15	---	2	15	0	16	SW	Agent So. Pacific Co.	
Carson City—1	Ormsby	4,660	20	39.3	+8.7	61	16	16	27	39	0.28	-2.28	0.15	---	4	15	9	7	NE, S	C. W. Friend	
Carson City (W. B.)—1	Ormsby	4,720	12	39.3	+8.7	60	16	18	27	38	0.20	-2.36	0.10	---	2	15	9	7	SW	U. S. Weather Bureau	
Clover Valley	Elko	6,000	1	---	---	---	---	---	---	---	0.51	---	0.14	1.5	6	13	8	10	---	A. H. Wiseman	
Crane's Ranch	Elko	5,350	12	---	---	---	---	---	---	---	0.35	-0.64	0.10	---	6	12	5	14	W	W. T. Crane	
Duck Valley—1	Elko	6,000	---	35.5	---	53	13	10	28	33	1.36	---	0.38	---	9	17	3	11	SE	Henry J. Huff	
Elko—1	Elko	5,063	29	35.8	+14.2	56	14	5	9	43	1.55	+0.57	1.00	0.5	3	19	12	0	NE	C. H. Sproule	
Elko	Elko	5,063	---	26.4	+4.8	50	12	4	9	---	1.50	+0.52	0.80	---	3	12	0	19	W	Agent So. Pacific Co.	
Ely—1	White Pine	6,000	12	31.6	+9.5	49	12	10	9	32	0.20	-0.93	0.15	0.5	2	11	6	14	SW	M. B. Garaghan	
Fenelon	Elko	6,128	12	19.6	-0.8	47	19	-10	10	---	0.25	-1.08	0.20	2.5	2	6	7	18	W	Agent So. Pacific Co.	
Golconda	Humboldt	4,392	21	37.6	+7.5	60	14	17	26	---	0.05	-0.57	0.05	---	1	21	8	2	SE	Agent So. Pacific Co.	
Halleck	Elko	5,229	27	28.6	+7.0	54	13	-7	1	---	0.45	-0.56	0.45	---	2	13	3	15	S	Agent So. Pacific Co.	
Hot Springs	Churchill	4,072	12	42.0	+14.8	70	15	20	25	---	0.00	-0.59	---	---	0	20	4	7	NW	Agent So. Pacific Co.	
Humboldt	Humboldt	4,236	28	36.5	+6.6	58	15	15	26	---	0.75	-0.06	0.75	---	2	18	4	9	S	Agent So. Pacific Co.	
Lee	Elko	---	---	---	---	---	---	---	---	---	1.12	---	0.40	5.0	6	15	10	6	S, SW	Miss Jennie Williams	
Lewers' Ranch—1	Washoe	5,200	12	39.5	+8.3	60	18	18	9	36	0.96	-3.22	0.37	---	6	21	6	4	SW	E. Lewers	
Lovelock	Humboldt	3,977	8	99.3	+7.6	56	9	20	9	---	0.20	-0.30	0.20	---	1	21	4	6	S	Agent So. Pacific Co.	
dMartin's Ranch—1	Douglas	4,830	1	39.5	---	68	18	15	27	36	0.15	---	0.10	---	2	24	0	3	---	J. H. Martin	
eMcGill—1	White Pine	5,200	1	31.5	---	52	11	9	24	38	T	---	T	---	0	20	0	7	---	Mrs. W. N. McGill	
Mill City	Humboldt	4,225	11	35.5	+8.3	58	17	18	27	---	0.00	-0.57	0.00	---	0	14	17	0	---	Agent So. Pacific Co.	
Monitor Mill—1	White Pine	6,400	1	31.8	---	49	31	12	9	29	0.17	---	0.12	---	2	12	5	14	SW	Jas. B. Orr	
Palisade	Eureka	4,821	18	32.3	+8.6	56	17	4	19	---	1.72	+0.58	0.57	4.0	4	19	0	12	E	Agent So. Pacific Co.	
Reno—1	Washoe	4,484	29	39.8	+9.9	60	13	20	27	36	0.50	-1.00	0.28	---	3	16	8	7	---	State University	
Tecoma	Elko	4,812	22	26.2	+5.5	50	20	5	25	---	T	-0.56	T	---	0	9	1	21	W	Agent So. Pacific Co.	
Toano	Elko	5,975	30	33.6	+12.5	52	13	17	1	---	0.40	-0.47	0.20	4.0	2	11	5	15	W	Agent So. Pacific Co.	
Tuscarora—1	Elko	6,400	9	32.2	+8.6	47	14	10	9	23	0.84	-1.66	0.51	1.5	5	15	7	9	SW	J. D. Geiselman	
Verdi	Washoe	4,895	10	40.2	+9.5	68	26	20	9	---	0.74	-3.84	0.62	---	2	17	0	14	SW	Agent So. Pacific Co.	
Wadsworth	Washoe	4,077	28	38.0	+6.0	68	10	8	26	---	0.35	-0.43	0.20	---	3	26	0	5	N	Agent So. Pacific Co.	
Wells	Elko	5,623	---	32.0	+10.5	53	19	0	9	---	0.57	-0.95	0.25	1.0	3	17	0	14	SW	Agent So. Pacific Co.	
Winnemucca—1	Humboldt	4,432	21	35.9	+8.7	56	13	12	26	35	0.68	-0.37	0.50	---	6	10	10	11	NE	U. S. Weather Bureau	
SOUTHERN SECTION.																					
Belmont	Nye	8,132	---	---	---	---	---	---	---	---	0.37	---	0.35	---	3	20	3	8	N	W. N. Granger	
Bunkerville	Lincoln	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	Miss Emily J. Lee	
Candelaria—1	Esmeralda	5,783	10	42.4	+11.6	71	13	12	9	44	T	-0.78	T	---	0	30	0	1	N	R. F. Laffoon	
Empire Ranch—1	Nye	6,990	7	34.8	+10.6	62	3	7	9	30	0.20	-0.53	0.10	1.5	3	7	9	15	S	Miss Bessie Potts	
Hawthorne—1	Esmeralda	4,569	12	39.6	+6.0	61	23	20	10	32	0.10	-0.49	0.05	---	2	11	8	12	NW	C. P. Mengel	
Las Vegas—1	Lincoln	2,074	5	45.4	+7.4	62	17	25	11	30	0.00	-0.78	0.00	---	0	23	6	2	W	E. B. Kiel	
Palmetto—1	Esmeralda	6,500	10	36.8	+11.3	65	13	11	9	44	0.45	-1.35	0.25	---	2	21	4	6	W	Wm. Oothout, Jr.	
Silver Peak—1	Esmeralda	4,382	4	41.6	+16.6	66	27	13	10	40	0.00	-0.24	0.00	---	0	24	0	7	SW	J. M. Stafford	
Sodaville—1	Esmeralda	4,665	1	40.0	---	65	18	10	27	44	T	---	T	---	0	15	9	7	N	T. G. Watterson	
Tybo—1	Nye	6,500	8	34.9	+5.9	48	23	18	9	22	0.70	-0.46	0.60	---	2	21	7	3	S	Jas. B. Gilmore	

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

Dense Fog—Belmont, 3, 4, 5; Carlin, 4; Carson City, 4; Crane's Ranch, 25, 26, 27, 28; Fenelon, 20, 22, 23; Hawthorne, 4; Lee, 18, 20, 22; Mill City, 1, 2, 3; Palisade, 17, 18, 19; Tecoma, 1, 6, 20; Toano, 1, 2, 3, 7; Tuscarora, 13, 14, 15, 16, 17, 20; Tybo, 1.

Pogonip—Belmont, 14; Ely, 21; Monitor Mill, 21, 22.

Solar Halos—Carson City, 12, 15, 24, 28, 29.

Lunar Halos—Carson City, 6, 16; Reno, 13.

High Wind—Duck Valley, 1, 2; Palmetto, 8.

Meteors—Lewers' Ranch, 31.

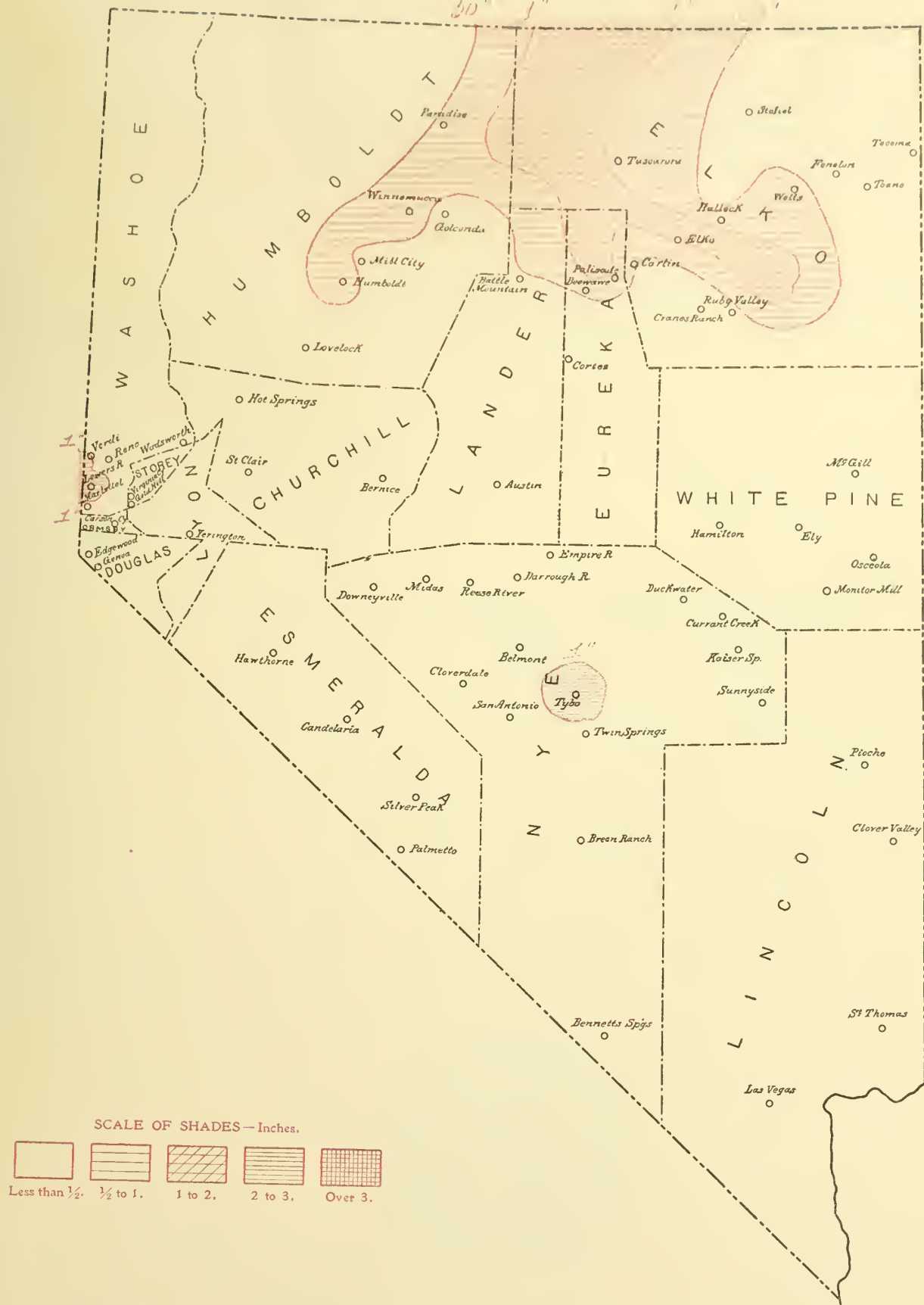
CLIMATE AND CROPS: NEVADA SECTION.

JANUARY, 1900.

[illegible]

T indicates trace. * Precipitation included in that of following day.

TOTAL PRECIPITATION FOR JANUARY, 1900.



This is the third time in the past twenty-nine years that Tuscarora has had such extremely warm weather in January.

E. H. GEISELMAN.

RENO—The month of January was characterized by its mildness of temperature and by its lack of precipitation, which was far below the normal. The thermometer ranged between 60 degrees, which was reached on the 13th and again on the 23d, and 20 degrees, which was reached on the morning of the 27th. The normal rainfall for January, as deter-

mined by the observations of the last twenty-eight years, is 1.50 inches. During last month but 0.50 of an inch fell here. The rainfall for December, however, was nearly twice the normal precipitation, consequently the average for the two months was nearly normal. During the last month 16 days were clear, 8 partly cloudy and 7 cloudy. The outlook for the next season was very promising in December, but the clear, warm days of January make it appear as if we would be visited by another dry summer. SAMUEL B. DOTEN.

CARSON CITY, NEVADA:

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1900

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR FEBRUARY, 1900.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

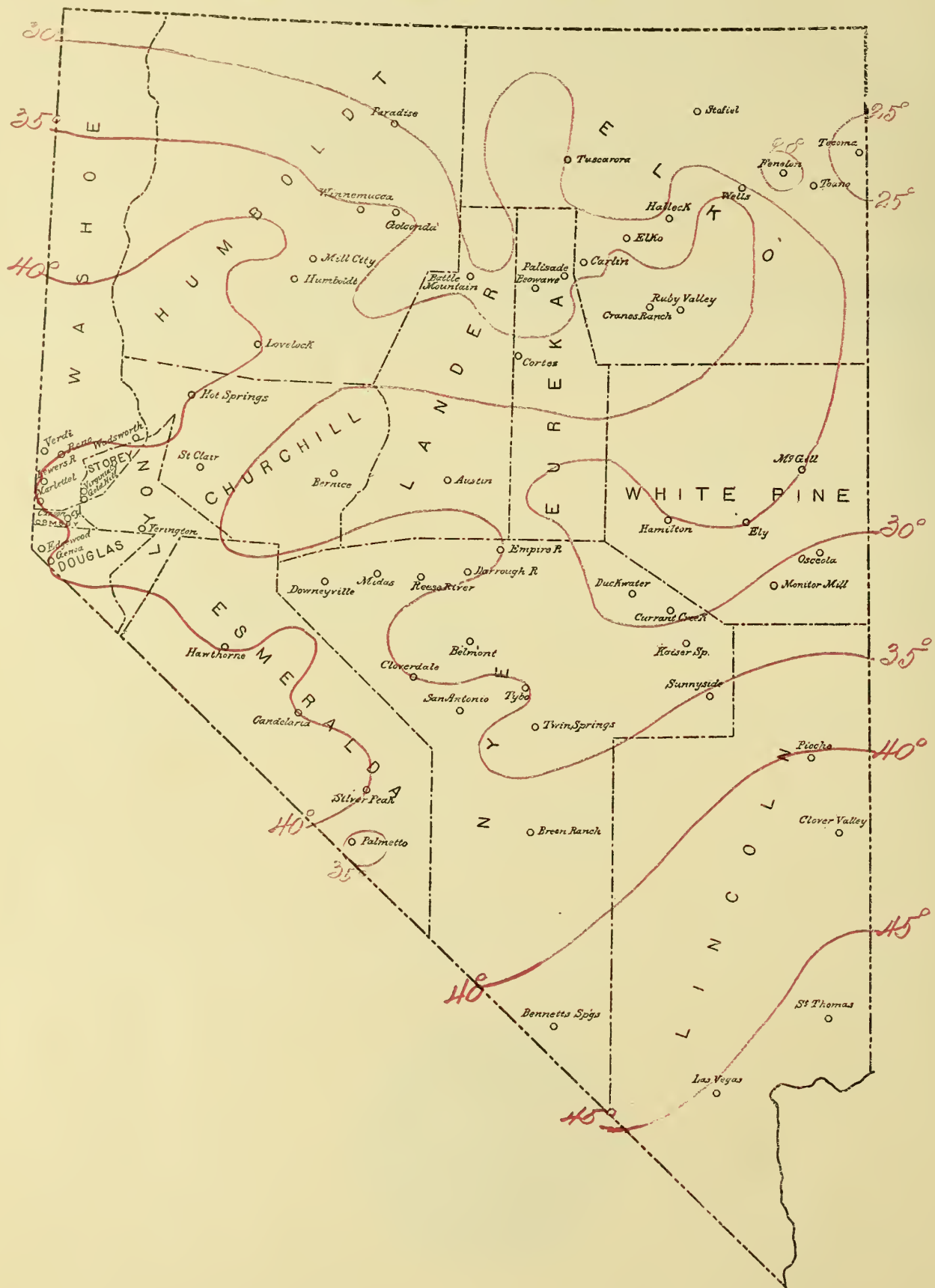
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR FEBRUARY, 1900.



U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director.

CARSON CITY, NEVADA.

VOL. XIV.

CARSON CITY, NEVADA

No. 2.

SUMMARY OF WEATHER CONDITIONS.

The weather of the month was exceptionally fine, mild and pleasant in all sections of the State. There was an entire absence of storms and other disagreeable features which are usually more or less prominent in February, and on the whole the month may be regarded as having been rather quiet and uneventful. The days were warm and sunny, while the nights were not uncomfortably cold. The temperature and precipitation were both abnormal, especially the latter which was nearly three-fourths of an inch below the usual amount for February. All stations throughout the State, except Fenelon and Wadsworth, reported an excess of monthly mean temperature, the amounts ranging from 1 to 8 degrees above normal. The snowfall for the month was unusually light, the average depth for the State being less than 3 inches.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the Weather Bureau stations at Carson City and Winnemucca, was 30.16 inches.

The highest pressure, 30.52 inches, was recorded at Winnemucca, on the 10th, and the lowest, 29.78 inches, at Carson City, on the 6th; absolute range of pressure for the State, 0.74 inches.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the records of thirty-four stations, was 35.3, or about 4.9 degrees above normal.

By sections, the mean was: Northern, 34.3 degrees; southern, 39.4 degrees.

The highest monthly mean was 46.0 degrees, at Las Vegas, Lincoln county.

The lowest monthly mean was 21.3 degrees, at Fenelon, Elko county.

The highest temperature recorded during the month was 76 degrees, at Las Vegas, Lincoln county, on the 25th.

The lowest temperature recorded during the month was -12 degrees, at Fenelon, Elko county, on the 16th.

The absolute range of temperature for the State was 88 degrees.

The greatest local daily range of temperature at stations equipped with self-registering instruments was 49 degrees, at Sodaville, Esmeralda county, on the 28th, and the least, 4 degrees, at Lewers' Ranch, Washoe county, on the 18th.

Precipitation—Inches and Hundredths.

The precipitation for the State averaged 0.51 inches, or about 0.70 below normal.

The greatest monthly amount recorded was 1.60 inches, at Palmdale, Elko county, and the least monthly amount, none, at a few stations.

The greatest amount recorded in any twenty four consecutive hours was 0.89 inches, at Palmdale, Elko county, on the 21st, and the least, none, at several stations.

Wind and Weather.

The prevailing direction of the wind was from the south-west.

The total movement of the wind at Carson City was 4,911 miles, and at Winnemucca, 7,111 miles. The maximum velocity at Carson City was 60 miles per hour, from the west, on the 11th, and at Winnemucca, 60 miles per hour, from the west, on the 6th.

The average number of clear days was 11; partly cloudy, 6; cloudy, 11; days on which .01 of an inch or more of precipitation occurred, 4.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR FEBRUARY DURING THE PAST ELEVEN YEARS.

Year.	Mean.	Highest.	Lowest.	Average precipitation, inches and hundredths.
1890-----	30.7-----	88-----	41-----	1.55-----
1891-----	30.5-----	66-----	19-----	2.39-----
1892-----	33.0-----	74-----	18-----	0.95-----
1893-----	29.9-----	69-----	40-----	1.43-----
1894-----	25.7-----	71-----	41-----	1.92-----
1895-----	31.1-----	77-----	35-----	1.23-----
1896-----	35.4-----	86-----	12-----	0.02-----
1897-----	29.6-----	67-----	22-----	2.09-----
1898-----	20.4-----	63-----	28-----	0.69-----
1899-----	33.3-----	73-----	27-----	0.55-----
1900-----	35.3-----	76-----	12-----	0.51-----

The normal temperature for February is 30.4 degrees; normal precipitation, 1.21 inches.

THE WINTER'S SNOWFALL.

Owing to the mild character of the weather during the past winter, the snowfall throughout the State has been much lighter than usual. The total fall in the valleys during the winter was about 10 inches, nearly all of which fell during the month of December. There was practically no snowfall in January and only 2.5 inches in February. The deficiency was greatest over the central, western and southern sections of the State.

At the close of February there was but very little snow on the mountains, as seen from the valleys, and, according to reports of correspondents, the stock of accumulated snow in the gulches is much lighter than for a number of years.

The following reports of voluntary observers and crop correspondents of the Nevada section represent all sections of the State, and show the amount of snowfall in the vicinity of their respective stations during the past winter, and also the estimated depth of snow in the mountains at the end of the current month:

Elko County.

WHITE ROCK—As no previous record has been kept at this place, cannot tell how far short of normal the snowfall for the past winter has been. Old residents say it is the least for years. Not much snow in the mountains, and farmers fear there will be no water next summer. Think river will go dry by July unless we have more snow in March. H. J. HUFF.

LEE—There is not as much snow in the mountains as there usually is. The snow that fell here this winter remained but a short time, and many fear that water will be scarce next summer. MISS JENNIE WILLIAMS.

WELLS—The snowfall in this vicinity has been exceptionally light, and there is as little snow in the mountains as there has been for a number of years the 1st of March. A. H. WISEMAN.

BULLION—The snowfall here up to March 1st has been lighter than for ten years. The snow now on the mountains is about one-third the usual quantity at this season of the year. F. J. FRANK.

ELKO—Snowfall has been very light compared with past years. Considerable snow in Ruby range, south of Elko, but very little to speak of in ranges in immediate vicinity to the north. C. H. SPOULE.

SKELTON—The snowfall of the past winter has been much lighter than

in former years. Cannot say just how much has fallen in the mountains, but the supposition is that there is not as much snow as in previous years. G. M. MOODY.

TOANO—Snowfall so far this winter has been very light compared with the average snowfall of previous years. C. E. GALE.

WELLS—A very light snow at any time the past winter. Considerable in the mountains, although not the average, and not enough to keep up water for late irrigating. CHAS. LAMPMAN.

WELLS—Snowfall for season is lightest ever known in this locality; scarcely any in the mountains. Crops and feed on range will be very light. Heavy spring rains will help out some, but they will have to be away above the average. E. F. STANTON.

LOVELOCK—No snow here this winter; some in the mountains; not much below usual fall; very light in this section. J. W. WALTERS.

HALLECK—The snowfall in this immediate vicinity has been a little heavier than last year, but I understand that the fall in the mountains has not been as heavy as in former years, though there seems to be considerable on the mountains at present. Last year considerable snow fell during the month of March. G. A. TONEY.

DEETH—The past winter has been very mild. Very little snow fell in this vicinity. The snow in the mountains is not deep. J. H. O'BRIEN.

CRANE'S RANCH—Not as much snow the past winter as usual, perhaps about one-half the normal amount. The winter has been mild and pleasant. WM. T. CRANE.

HUNTINGTON—The following is the record of snowfall at this place during the past winter: December, 17 inches; January, 2 inches; February, 4½ inches. A. W. BROWNE.

LANOILLE VALLEY—The snow in the mountains is good at present, but up to March 1st there was a great deficiency. But it has been stormy at intervals, and at the present time (March 8th) the estimated amount in the canyons is about the same as last year. G. M. BOWER.

ALEXANDER—We had 6 inches of snow in December; 3 inches in January and about 3 inches in February. The snow in the mountains is much less than the usual amount. P. J. McNAMEE.

Humboldt County.

WINNEMUCCA—The snowfall since September, 1899, to February 23, 1900, inclusive, has been much less than the average amount. In October the total snowfall was 10 inches. In November none at all fell, and in December only about 1.5 inches fell, while in January there was no snowfall. During February only 1.5 inches fell in this valley, and unless there is heavy snowfall during March, water will be very scarce in this valley this summer. J. C. HAYDEN.

WILLOW CREEK—The snowfall for the past winter has been as follows: In the hills, 4 feet; along the foot hills, 20 inches; no drifted snow to speak of. The rainfall has been above normal. R. McLERAN.

MILL CITY—The snowfall the past winter has not been over one inch at all. A. W. DAVIS.

NORTH'S RANCH—The snowfall of the past winter has been very light. Very little snow in the mountains. J. T. DESMOND.

GOLCONDA—There is less snow in the mountains than last year. I think, however, that there will be sufficient water for crops and domestic purposes. M. PURCELL.

HUMBOLDT—Snowfall the past winter was 18.5 inches. There is considerable snow in the mountains, probably more than last year at the close of February. J. J. CULLEN.

White Pine County.

MONITOR MILL—The snowfall the past winter has been a great deal lighter than for a number of years. There is very little snow on the mountains now. JAS. B. ORR.

ELY—There was about 10 inches of snowfall from the 10th to 14th of December, 1899; none during the last half of December and all of January, and only light snows in February, probably an inch during entire month. Dryest winter since 1864, apparently. H. A. COMINS.

ELY—Snowfall the past winter has been much lighter than in former years. There is considerable snow yet in the mountains, but not so much as in former years. M. B. GARAGHAN.

ILLIPAH—The lightest snowfall since I have been in this section of the State. Very little snow in the mountains. W. M. MOORMAN.

SNOBONE—There has been about 12 inches of snowfall here in the valley during the winter. I think the snow is a little heavier in the mountains than it was last year. GEO. SWALLOW.

HAMILTON—The lightest snowfall during the past winter that has ever been known at this station. Very little snow in the mountains and what there is lies on the south side of the hills. MRS. J. F. BECK.

Lyon County.

WABUSKA—The snowfall in the valley has been much less than usual, but more than a year ago. Snowfall in the mountains at the headwaters of Walker river is less than for many years, and crops will undoubtedly be short. J. G. YOUNG.

WABUSKA—The snowfall in this section is much lighter than for the past eight years. There is none to speak of in the mountains. The past two months there has not been any frost; cabbage left on the ground have not been frozen enough to spoil yet. Grass has started very nicely. During December about one foot of snow fell, which did not last very long. PAUL H. GALLAGHER.

DAYTON—The two inches of snow which fell from December 5th to 7th laid in the shade a month and made a great deal of mud. Prospects ahead are gloomy. J. T. HAYNES.

Lander County.

GALENA—The snowfall has been extremely light this winter. There is but little snow in the mountains. B. F. WILSON.

GALENA—The snowfall has been very light this winter, less than any winter for many years. We had considerable rain. The hills about here are bare of snow. The grass has been green all winter, which is something I have never before seen in Nevada for twenty-five years. JOHN JORY.

SPENCER—The snowfall during the winter has been much lighter than it was last year, owing to high winds during the snowstorms. The snow is quite deep on the mountains and in the gulches in this section. J. H. SPENCER.

Eureka County.

BEOWAWE—There was 9 inches of snowfall in December, none in January and 3 inches in February. Very little snow in surrounding mountains. E. F. WOLEVER.

PALISADE—The snowfall the past season has been much lighter than in former years. Not much on the mountains. J. A. FERRARO.

Nye County.

HOT CREEK—There is very little snow in the mountains. During a residence of thirty-three years here in Hot Creek, I have never experienced such a mild winter or witnessed such a light fall of snow. Our winter here has been like spring. JOS. T. WILLIAMS.

TYBO—The snowfall this year has been much lighter than in previous years. None has laid in the valleys during the winter, and at the present time (March 3d) only a trace on the north side of the hills. J. B. GILMORE.

JUNCTION—The snowfall during the past winter has been the lightest for at least twenty years, especially on Jefferson range. A. B. MILLET.

BELMONT—Commencing January 1, 1900, to March 1, 1900, the precipitation has been 0.40. There was a slight snowfall in December, not more than 5 inches, of which I have no record. During the last five months the precipitation has been much below normal. W. N. GRANGER.

Churchill County.

LEETVILLE—There was but one general snowfall during the past winter, consisting of about 8 inches of snow which fell the latter part of December. There were two light falls of snow later of about one inch, making a total of 10 inches. There is considerable snow in the mountains in this vicinity. W. F. KAISER.

FALLON—The only snowfall for the season was in December; not over 5 inches fell and it melted in a few days. Very little snow in the mountains. J. W. FERGUSON.

Esmeralda County.

PINE GROVE—Less snow in this section than usual. No snow on the south hillsides, and very little on the north side. E. W. STEWART.

PINE GROVE—Only one snowstorm during the winter amounting to anything, which occurred during the early part of the winter. Several snow squalls during the winter, but not more than 2 inches at any time after the first fall. No snow on the level or south hillsides, and very little on the north side. E. R. SHIELDS.

PALMETTO—The snowfall for the season is the lightest on record. No snow on the mountains. Gloomy outlook for ranchers and stockmen the coming season. WM. OOTHOUT, JR.

Washoe County.

WADSWORTH—There has been but one snowstorm here the past winter of about 6 inches. I think amount rather below average. T. G. HERMAN.

FRANKTOWN—There was 23.5 inches of snow in December at this place; none in January and about 2 inches in February. The greatest depth was 10 inches in December. Not over 3 feet in the drifts in the mountains. E. LEVENS.

FRANKTOWN—Less snow than there has been for ten years. Total in valley for season estimated at 1 foot; in mountains about 4 feet. There will be a shortage of water and a dry summer unless we have a very wet spring. ALEX. TWADDLE.

RENO—During the past winter the snowfall in this vicinity has been lighter than in former years. There is but little snow in the mountains. The road is open through the Sierra Nevada mountains from Verdi to Truckee. SAMUEL B. DOTEN.

Ormsby County.

CARSON CITY—There was 8 inches of snowfall in December, none in January, and only a trace in February. Very little snow in the mountains. The past winter has been the mildest in many years. J. H. SMITH.

Lincoln County.

RIOVILLE—No snowfall whatever all winter. None in sight on the mountains. No rain. About .01 of an inch of rain fell in November. Dryest winter for twenty-five years, and prospects for water in streams and springs correspondingly poor. No feed on the range. D. BONELLI.

PANACA—The snowfall during the past winter will not exceed 1 inch in the valley and not over 6 inches in the mountains. The dryest winter we have had in thirty years. HENRY MATHEWS.

GRYSER—We had 3 inches of snowfall on December 9th and 12 inches on December 20th, none since. The snowfall has been lighter the past winter than for many years. Very little in the mountains. M. ROBINS.

ST. THOMAS—We have had but barely more than a trace of rain the past winter. No snow in the mountains. MATTHEW SYPHUS.

LAS VEGAS—We have had no snowstorms in this valley during the past winter. Snow in the mountains is very light. No rain during the winter. E. B. KIEL.

CLIMATOLOGICAL DATA FOR FEBRUARY, 1900.

Stations	Counties	Elevation (feet)	Length of record (years)	Temperature (degrees Fahrenheit).							Precipitation (Inches).				Days				Observer	
				Mean	Departure from the normal.	High set.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest 24 hours.	Total snowfall (inches).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.		Prevailing direction of wind.
NORTHERN SECTION.																				
Austin	Lander	6,594	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	G. W. Dyer
Battle Mountain	Lander	4,511	29	33.4	+0.4	48	23	5	7	---	0.20	-0.57	0.10	2.0	2	20	2	6	NE	Agent So. Pacific Co.
Beowawe	Eureka	4,695	29	31.7	+0.5	53	21	15	5	---	0.95	+0.24	0.50	4.5	5	0	0	28	S	Agent So. Pacific Co.
Carlin	Elko	4,897	29	34.0	+8.4	55	24	17	3	---	0.60	-0.35	0.20	4.0	3	4	0	24	W	Agent So. Pacific Co.
Carson City—1	Ormsby	4,660	20	40.1	+4.3	69	24	17	10	48	0.38	-1.11	0.28	0.1	3	10	15	3	SW	C. W. Friend
Carson City (W. B.)—1	Ormsby	4,720	12	40.0	+4.2	65	24	18	8	42	0.28	-1.21	0.23	T	3	4	15	9	SW	U. S. Weather Bureau
Clover Valley	Elko	6,000	1	---	---	---	---	---	---	---	1.59	---	0.38	2.0	10	6	12	10	W	A. H. Wiseman
Crane's Ranch	Elko	5,350	12	---	---	---	---	---	---	---	0.69	-0.23	0.20	---	7	6	7	15	W	W. T. Crane
Duck Valley—1	Elko	6,000	---	31.2	---	52	21	5	16	37	1.17	---	0.45	---	9	8	8	12	SE	Henry J. Huff
Elko—1	Elko	5,063	29	31.5	+6.6	56	25	8	5	41	1.50	+0.78	0.75	7.5	6	13	15	0	NE	C. H. Sproule
Elko	Elko	5,063	---	28.6	+0.7	50	18	10	7	---	0.88	+0.16	0.20	6.0	7	11	0	17	W	Agent So. Pacific Co.
Ely—1	White Pine	6,000	12	32.3	+3.2	58	28	5	6	41	0.09	-1.22	0.06	1.0	3	4	14	10	NE	M. B. Garaghan
Fenelon	Elko	6,128	12	21.3	-5.5	44	2	-12	16	---	0.70	-0.43	0.10	7.0	4	5	7	16	---	Agent So. Pacific Co.
Golconda	Humboldt	4,392	21	37.0	+2.0	60	22	13	7	---	0.33	-0.23	0.15	---	4	9	5	14	W	Agent So. Pacific Co.
Halleck	Elko	5,229	27	28.2	+2.2	55	18	5	7	---	0.40	+0.02	0.20	4.0	3	7	0	21	SW	Agent So. Pacific Co.
Hamilton—1	White Pine	7,977	---	30.7	---	48	23	1	7	33	0.03	---	0.03	T	1	10	6	12	S	Mrs. J. F. Beck
Hot Springs	Churchill	4,072	12	41.7	+8.1	60	7	18	6	---	0.00	-0.65	---	0.0	0	18	0	10	NW	Agent So. Pacific Co.
Humboldt	Humboldt	4,236	28	37.2	+2.6	55	23	15	7	---	1.40	+0.60	0.68	5.0	5	10	2	16	S	Agent So. Pacific Co.
Lee	Elko	---	---	---	---	---	---	---	---	---	1.35	---	0.25	16.5	11	11	5	12	SW	Miss Jennie Williams
Lewers' Ranch—1	Washoe	5,200	12	37.6	+3.0	66	24	11	7	41	1.13	-2.15	0.68	3.1	6	14	12	2	SW	E. Lewers
Lovelock	Humboldt	3,977	8	40.4	+4.4	66	28	14	7	---	0.46	-0.07	0.20	---	4	11	13	4	N	Agent So. Pacific Co.
Martin's Ranch—1	Douglas	4,830	1	39.0	---	67	24	17	7	45	T	---	T	0.0	0	25	1	2	SW, W	J. H. Martin
McGill—1	White Pine	5,200	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	Mrs. W. N. McGill
Mill City	Humboldt	4,225	11	37.5	+3.5	56	17	10	7	---	0.20	-0.22	0.10	2.0	3	4	13	11	SW	Agent So. Pacific Co.
Monitor Mill—1	White Pine	6,400	1	31.1	---	54	28	6	6	38	0.09	---	0.06	1.0	3	3	12	13	N	Jas. B. Orr
Palisade	Eureka	4,821	18	33.4	+3.8	62	24	12	7	---	1.60	+0.47	0.80	6.0	5	10	0	18	---	Agent So. Pacific Co.
Reno—1	Washoe	4,484	29	40.2	+5.3	66	24	12	7	40	0.27	-0.81	0.27	T	1	13	10	5	W	State University
Tecoma	Elko	4,812	22	25.0	-3.1	55	1	-2	17	---	0.20	-0.31	0.10	2.0	2	8	6	14	W	Agent So. Pacific Co.
Toano	Elko	5,975	30	28.5	+2.0	53	21	11	5	---	0.25	-0.59	0.15	2.5	2	5	0	23	W	Agent So. Pacific Co.
Tuscarora—1	Elko	6,400	9	29.0	+1.5	45	21	9	16	31	1.45	-0.21	0.33	17.0	9	11	12	5	SW	J. D. Geiselman
Verdi	Washoe	4,895	10	42.1	+8.4	65	16	20	1	---	0.30	-1.88	0.30	0.0	1	17	0	11	SW	Agent So. Pacific Co.
Wadsworth	Washoe	4,077	28	37.5	-0.9	70	28	10	7	---	0.25	-0.29	0.25	---	1	24	3	1	W	Agent So. Pacific Co.
Wells	Elko	5,623	---	34.8	+8.3	55	1	12	5	---	T	-0.98	T	---	0	12	1	15	SW	Agent So. Pacific Co.
Winnemucca—1	Humboldt	4,432	21	36.2	+3.2	57	21	5	7	48	0.69	-0.19	0.27	---	7	4	10	14	SW	U. S. Weather Bureau
SOUTHERN SECTION.																				
Belmont	Nye	8,132	---	---	---	---	---	---	---	---	0.05	-1.20	0.05	T	1	17	5	6	SW	W. N. Granger
Bunkerville	Lincoln	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	Miss Emily J. Lee
Candelaria—1	Esmeralda	5,783	10	41.4	+5.7	72	21	15	7	45	0.07	-0.35	0.05	0.8	2	26	0	2	N	R. F. Laffoon
Empire Ranch—1	Nye	6,990	7	33.6	+7.2	57	18	7	9	30	0.08	-0.90	0.05	1.5	2	3	5	20	N	Miss Bessie Potts
Hawthorne—1	Esmeralda	4,569	12	41.3	+2.5	64	18	17	6	41	0.10	-0.30	0.05	---	3	9	10	9	NW	C. P. Mengel
Las Vegas—1	Lincoln	2,074	5	46.0	+2.2	76	25	22	8	35	0.00	-0.60	---	0.0	0	22	6	0	W	E. B. Kiel
Palmetto—1	Esmeralda	6,500	10	35.7	+4.0	68	25	6	9	46	0.20	-1.54	0.20	2.0	1	23	5	0	W	Wm. Oothout, Jr.
Silver Peak—1	Esmeralda	4,382	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	J. M. Stafford
Sodaville—1	Esmeralda	4,665	1	42.0	---	71	28	10	9	49	0.03	---	0.03	0.0	1	15	4	9	N	T. G. Watterson
Tybo—1	Nye	6,500	8	35.8	+1.8	57	25	10	8	30	0.40	-0.59	0.35	6.0	2	9	18	1	SW	Jas. B. Gilmore
Means or Extremes				35.3	+4.9	76	25	-12	16	49	0.51	-0.70	0.80	2.6	4	11	6	11	SW	Means or Extremes

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

MISCELLANEOUS PHENOMENA.

Solar Halos—Carson City, 1, 19, 22, 28; Hamilton, 26; Sodaville, 8.

Lunar Halos—Carson City, 8; Reno, 9.

Meteors—Belmont, January 31.

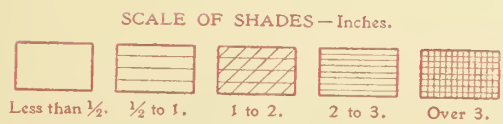
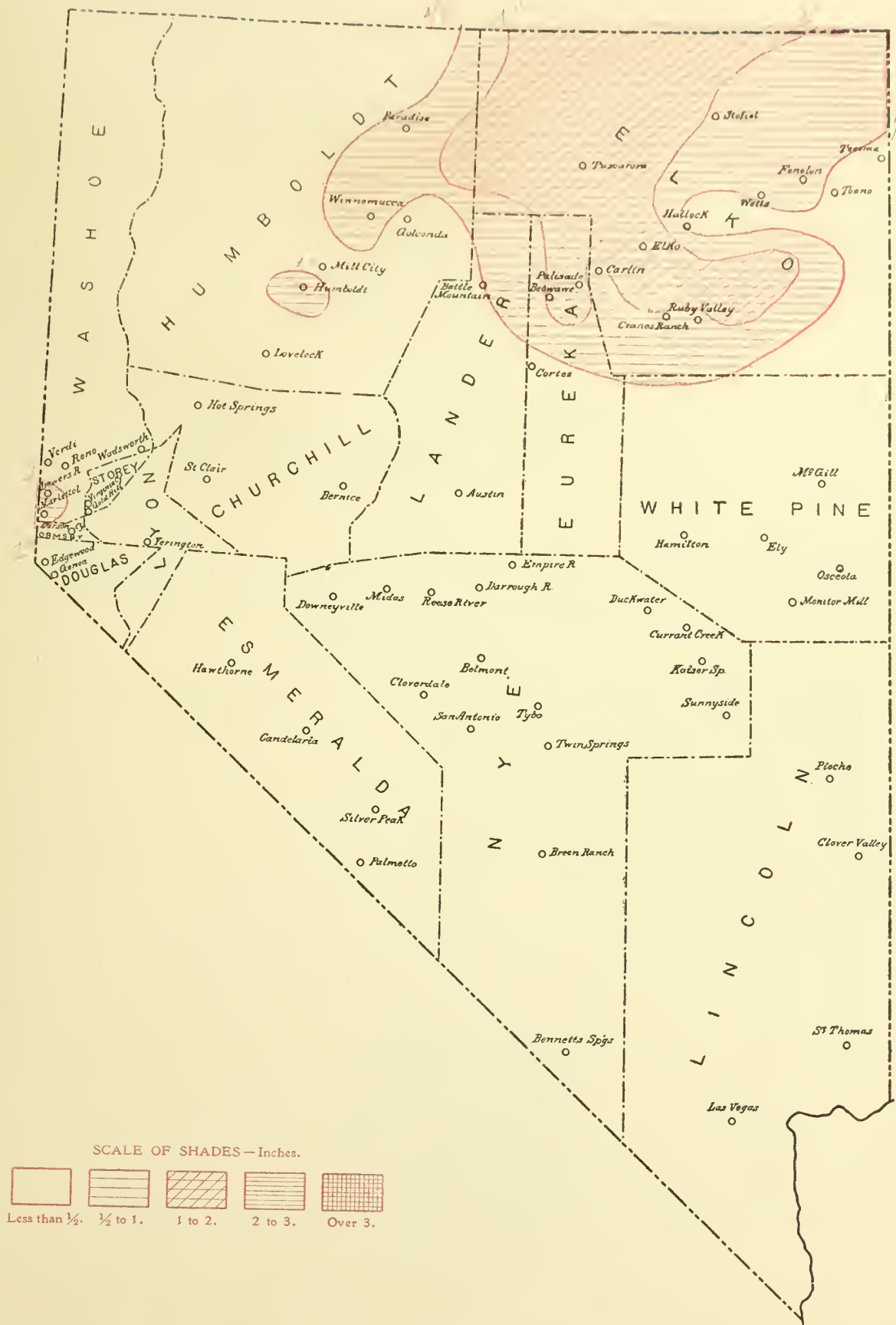
High Winds—Duck Valley, 9, 13; Empire Ranch, 6, 8, 9, 10, 13, 14, 15, 16, 17, 24, 25; Hamilton, 11; Palmetto, 7, 9, 19, 22, 26; Reno, 6; Sodaville, 7; Toano, 6, 7, 11, 12, 13, 22; Tybo, 13, 14, 15; Wells, 14; Carson City, 6, 14, 18, 22, 25, 26.

Sleet—Wells, 14; Duck Valley, 22.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR FEBRUARY, 1900.

Stations.		Day of Month.																															Monthly Means.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
NORTHERN SECTION.																																		
Austin	Max.	55	51	49	43	45	53	40	51	47	54	63	58	53	49	52	55	60	58	45	55	61	55	55	69	64	46	53	64				53.7	
Carson City	Min.	20	24	18	25	26	19	19	18	22	17	19	22	44	41	37	28	32	23	39	40	37	17	21	33	33	22	25				26.5		
Carson City (W. B.)	Max.	54	49	47	42	43	52	38	49	46	54	62	57	52	48	50	53	60	57	44	55	59	52	55	65	63	44	52	64				52.4	
Duck Valley	Min.	22	28	19	25	28	20	20	18	24	18	21	23	44	42	36	29	24	34	39	40	37	20	34	34	32	32	26				27.6		
	Max.	51	47	41	38	39	42	23	32	34	40	44	37	32	34	31	36	47	51	39	38	52	47	42	50	49	49	36	49				41.1	
Elko	Min.	23	34	23	28	12	20	11	19	18	18	27	12	19	10	16	5	10	33	23	30	34	25	18	28	33	27	12	31				21.1	
	Max.	50	46	49	48	46	40	36	40	46	51	46	52	44	54	50	48	51	34	49	48	54	50	51	54	56	48	50	52				48.0	
Ely	Min.	21	26	20	12	8	12	10	12	19	16	12	18	20	31	16	12	10	18	30	36	30	32	26	30	29	31	28				21.2		
	Max.	47	48	46	40	40	45	46	50	35	40	42	47	43	45	41	40	53	45	47	48	52	40	26	42	56	55	40	55	58				45.2
Hamilton	Min.	25	18	20	12	10	5	5	20	10	12	25	30	30	20	20	10	22	25	24	25	27	15	20	22	28	12	24	25				19.4	
	Max.	27	28	30	27	13	16	1	5	16	12	21	20	28	27	39	40	43	41	31	40	45	40	48	45	30	31	45				30.8		
Levers' Ranch	Min.	54	48	46	38	42	49	35	50	42	50	58	53	46	47	50	47	31	38	30	20	15	18	28	20	23	21						21.6	
Martin's Ranch	Max.	24	33	20	26	19	17	11	19	23	23	24	24	38	29	36	28	27	30	31	36	52	57	53	62	66	62	62	62				48.8	
	Min.	44	32	45	40	46	40	42	49	50	56	60	45	48	50	51	58	56	61	60	59	60	62	55	67	25	35	27	24	27				26.4
Monitor Mill	Max.	51	22	21	23	20	19	17	18	20	19	30	25	22	35	40	24	21	20	35	34	31	31	31	18	22	30	30	20	22				52.8
	Min.	47	46	45	41	40	44	45	34	56	39	41	42	40	42	41	40	44	45	46	47	50	45	42	50	51	48	50	54				44.1	
McCall	Min.	21	18	20	13	12	6	7	12	11	12	17	20	22	21	20	15	20	22	23	24	26	16	20	22	24	20	23	21				18.1	
	Max.	55	49	49	40	45	49	38	52	42	54	58	51	47	52	54	62	59	57	44	55	61	52	55	66	63	45	55	63				52.6	
Reno	Min.	24	26	20	24	23	18	12	18	28	21	25	42	39	38	29	25	30	33	28	39	38	34	21	25	33	32	27	25				27.8	
St. Clair	Max.	43	42	36	36	34	37	20	30	28	37	39	33	35	35	34	31	42	43	35	37	45	37	37	44	45	29	35	42				36.5	
Tuscarora	Min.	23	30	24	22	14	16	11	16	21	18	24	16	25	12	28	9	11	31	26	28	32	23	21	24	31	23	16	25				21.4	
Wells	Max.	54	47	43	40	45	46	32	42	42	48	53	46	49	45	46	46	54	56	41	43	57	55	49	55	56	43	48	57				47.8	
Winnemucca	Min.	17	22	24	26	14	21	5	20	29	16	20	12	38	23	34	19	21	35	30	31	39	32	24	23	34	32	22	25				24.6	
SOUTHERN SECTION.																																		
Belmont	Max.	64	64	56	51	46	58	38	54	47	52	62	58	56	56	60	61	59	61	47	61	72	54	63	70	70	48	57	71				57.7	
Candelaria	Min.	24	28	19	19	21	18	15	15	25	20	27	26	32	32	28	29	26	29	20	28	32	33	21	28	34	28	19	26				25.2	
Empire Ranch	Max.	46	46	40	48	39	42	35	34	50	30	29	48	45	45	46	50	54	57	50	54	50	47	49	48	56	55	49	48				45.4	
	Min.	19	17	10	20	15	21	10	9	7	7	10	20	21	25	26	27	26	30	32	34	34	25	30	30	29	20	20				21.9		
Hawthorne	Max.	53	53	49	43	43	58	36	50	46	48	57	54	56	57	56	53	62	64	49	57	67	58	54	61	62	56	52	60				54.1	
	Min.	28	28	22	20	27	17	23	17	28	22	24	29	35	42	32	31	29	35	29	32	35	41	25	27	34	36	23	28				28.5	
Las Vegas	Max.	54	54	55	57	55	56	46	44	55	47	59	57	60	67	57	59	58	55	55	62	60	60	50	65	76	50	55	57				56.6	
	Min.	32	33	38	32	28	31	37	22	31	41	27	42	36	33	36	45	31	30	37	35	35	37	42	41	42	44	30				53.4		
Palmetto	Max.	56	57	48	47	45	56	33	44	46	52	58	58	58	58	58	55	58	56	50	60	65	52	51	62	68	48	53	64				53.4	
	Min.	20	18	14	10	20	10	15	9	6	20	14	17	20	24	22	20	22	31	20	25	20	8	18	24	24	24	15	18				18.0	
Silver Peak	Max.	59	56	52	54	50	52	54	57	48	58	63	59	62	61	60	58	58	59	61	63	60	64	67	68	70	55	57	71				59.1	
Soiaville	Min.	21	22	23	30	19	18	15	15	10	20	22	33	38	38	36	34	36	34	29	28	30	25	24	25	28	24	20	22				25.0	
Tybo	Max.	35	45	43	39	40	42	43	34	34	42	50	44	45	45	45	48	50	46	45	52	51	45	52	52	57	54	44	54				45.6	
	Min.	25	28	21	21	20	20	13	10	21	16	24	25	36	35	34	32	25	34	27	27	33	37	25	25	37	32	20	24				26.0	
	Max.	59	56	52	54	50	52	54	57	48	58	63	59	62	61	60	58	58	59	61	63	60	64	67	68	70	55	57	71				59.1	
	Min.	21	22	23	30	19	18	15	15	10	20	22	33	38	38	36	34	36	34	29	28	30	25	24	25	28	24	20	22				25.0	
	Max.	35	45	43	39	40	42	43	34	34	42	50	44	45	45	45	48	50	46	45	52	51	45	52	52	57	54	44	54				45.6	
	Min.	25	28	21	21	20	20	13	10	21	16	24	25	36	35	34	32	25	34	27	27	33	37	25	25	37	32	20	24				26.0	

TOTAL PRECIPITATION FOR FEBRUARY, 1900.



DAILY PRECIPITATION FOR FEBRUARY, 1900.

Stations.		Day of Month.																														Total.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		31		
NORTHERN SECTION.																																			
Austin					.10									*	.20					.10															.20
Battle Mountain						.05									.20						.50														.95
Beowawe							*	.10					.20	.20							T						T								.60
Carlin																.02			.08																.38
Carson City	T												T	.08	.15	.01			.04		T	.09	.11					.23						.28	
Carson City (W. B.)				T	.19				.12												.22	.09	.11												.28
Clover Valley						.08									.10					.03	.20	.02						.07						1.39	
Crane's Ranch																																			.69
Duck Valley	T		.05	.06		.10	T	.03	.20			.07							.01	T	.13	.12					.10	.45						1.11	
Elko												.30	.10								.75													1.54	
Elly											T						T			.02	.06													.09	
Fenelon			.05					.05								.40																		.70	
Golconda															*			.15			.05	.07				.06								.33	
Halleck			.10	T											T		.20						.10											.40	
Hamilton								T							T					.03	T								T					.03	
Hot Springs																																			.00
Humboldt														*	.20					.20	.32												1.40		
Lee	T		.12	.02				.13	T				T	.13	.08		.08	.10	.27	.02	.07	.25	.05					.24					1.35		
Leevers' Ranch																.07		*										.68					1.13		
Lovelock																				.20	.14	.10						.02					.46		
Metall																																			
Mill City			T			.05							.10				.45			T	T							T						.20	
Martin's Ranch																T		T	.01	.02	.06						T						.09		
Monitor Mill											T								.20	.20	.20	.80											1.60		
Palisade						.20			.20																										
Reno			T	T	T	T						T							T		T						T	.27						.27	
St. Clair																																			.20
Tecoma																.10					.10													.20	
Toano			T			.15							T										T						.10					.25	
Tuscarora		.06	.03									.11	T	.28							.33		.07					.29						1.45	
Verdi																																		.30	
Wadsworth																T																		.25	
Wells																																			T
Winnemucca		T	T	T	T	.01	T		T				.04					T	.21	.27	.01	.01					T	.14						.69	
SOUTHERN SECTION.																																			
Belmont																		.05	T									T						.05	
Bankerville																																			
Candelaria					.05														.03	T	.05	T					T	.02						.07	
Empire Ranch								T		T										*	.02													.08	
Hawthorne																			.05									.03						.10	
Las Vegas																																		.00	
Palmetto				T														.20																.20	
Silver Peak																																			.03
Sodaville																					.03	T												.40	
Tybo					T														.35		T							.05							

T indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA:

STATE PRINTING OFFICE, - - ANDREW MAUTE, SUPT.

1900

U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR FEBRUARY, 1902.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

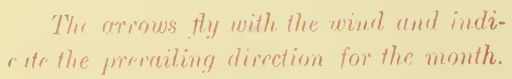
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



34°



U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL. XVI.

CARSON CITY, NEVADA.

No. 2.

SUMMARY OF WEATHER CONDITIONS.

The month was much milder and somewhat wetter than the average February. The majority of stations reported an excess of temperature and a little more than the usual amount of precipitation. The weather was coldest from the 2d to the 5th, and warmest about the middle of the month. The highest temperature, 75 degrees, was recorded at Lovelock, on the 15th, and the lowest, 16 degrees below zero, at Elko, on the 3d. The weather for the first three weeks of the month was fair and pleasant in all sections, but during the last week general storms prevailed over the greater portion of the State, being heaviest in western and northeastern sections. At the close of the month there was about 5 inches of snow on the ground in the valleys, with heavy accumulations in the cañons and gulches throughout the mountain ranges. In many localities plowing was in progress the greater part of the month.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.97 inches.

The highest pressure, 30.32 inches, was recorded at Winnemucca, on the 3d, and the lowest, 29.39 inches, at Carson City and Winnemucca, on the 25th.

The absolute range of pressure for the State was 0.93 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the reports of thirty-six stations, was 36.4, or 4.8 above normal.

By sections, the means were: Northern, 36.4; eastern, 32.1; central, 36.6; western, 41.1; southern, 35.9.

The highest monthly mean, 41.8 (Hot Springs not considered), was recorded at Martin's Ranch, Douglas county, and Wadsworth, Washoe county.

The lowest monthly mean, 30.6, was recorded at Hamilton, White Pine county.

The highest temperature recorded during the month was 75, at Lovelock, Humboldt county, on the 15th.

The lowest temperature recorded during the month was -16, at Elko, Elko county, on the 3d.

The absolute range of temperature for the State was 91.

The greatest local daily range of temperature at stations equipped with self-registering thermometers was 62, at Elko, Elko county, on the 3d, and the least, 3, at Lewers' Ranch, Washoe county, on the 27th.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 1.42 inches, or 0.34 of an inch above normal, and 1.21 inches less than the average for the corresponding month of 1901.

By sections, the averages were as follows: Northern, 1.50 inches; eastern, 1.53 inches; western, 2.44 inches; central, 0.84 of an inch; southern, 0.78 of an inch.

The greatest monthly amount, 7.19 inches, was recorded at Lewers' Ranch, Washoe county, and the least, 0.23 of an inch, at Wabuska, Lyon county.

The greatest amount recorded in any twenty-four consecutive hours was 2.60 inches, at Lewers' Ranch, Washoe county, on the 27th.

The average depth of the snowfall for the State, in the valleys, was 10.6 inches.

Relative Humidity.

Carson City—8 a. m., 73 per cent; 8 p. m., 63 per cent; monthly mean, 68 per cent.

Winnemucca—8 a. m., 77 per cent; 8 p. m., 70 per cent; monthly mean, 74 per cent.

Modena (Utah)—8 a. m., 65 per cent; 8 p. m., 38 per cent; monthly mean, 51 per cent.

Wind and Weather.

The prevailing direction of the wind was from the southwest. The total movement of the wind at Carson City was 5,732 miles; Winnemucca, 7,012 miles; Modena, Utah, 6,949 miles. The maximum velocity at Carson City was 48 miles per hour, from the southwest, on the 12th; Winnemucca, 52 miles per hour, from the southwest, on the 12th, and 54 miles per hour, from the northwest, at Modena, on the 26th.

The average number of clear days was 7; partly cloudy, 9; cloudy, 12; days with .01 of an inch or more of precipitation, 6.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR FEBRUARY DURING THE PAST THIRTEEN YEARS.

Year.	Temperature			Average precipitation, inches and hundredths.
	Mean.	Highest.	Lowest.	
1890	30.7	88	-41	1.55
1891	30.5	66	-19	2.39
1892	33.0	74	-18	0.95
1893	29.9	69	-40	1.43
1894	25.7	74	-41	1.92
1895	31.1	77	-35	1.23
1896	35.4	86	-12	0.02
1897	29.6	67	-22	2.09
1898	26.4	63	-24	0.69
1899	33.3	73	-27	0.55
1900	35.3	76	-12	0.51
1901	31.6	77	-27	2.61
1902	36.4	75	-16	1.41

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Rainbow—Carson City, 14th; Reno, 14th.

Solar Halo—Carson City, 13th, 21st.

Lunar Halo—Carson City, 15th.

Fog—Wood, 23d; Halleck, 23d; Carlin, 16th.

Fog, Dense—Palmetto, 24th, 25th; Fenelon, 23d; Hamilton, 22d, 24th, 25th, 26th, 27th.

Sleet—Palmetto, 25th; Carson City, 25th; Fenelon, 17th; Elko, 14th, 26th; Lewers' Ranch, 7th; Hamilton, 17th, 26th, 27th; Lee, 5th, 14th, 22d, 25th; Potts, 23d, 26th, 27th, 28th.

High Winds—Mill City, 11th; Golconda, 11th; Candelaria, 11th; Wood, 16th; Silver Peak, 25th; Owyhee, 12th, 16th; Lewers' Ranch, 7th, 8th, 12th, 14th; Palmetto, 11th, 17th, 26th; Potts, 11th, 14th, 23d, 25th, 26th; Palisade, 22d, 23d, 24th, 25th, 26th; Carson City, 11th, 12th, 14th, 16th, 17th, 20th, 25th, 26th, 27th; Winnemucca, 12th; Modena, Utah, 26th.

OBSERVERS' REMARKS.

Palisade—Strong winds from the 22d to the 26th. J. A. FERRARO.

Lee—Heavy snowfall the latter part of the month. JENNIE WILLIAMS.

Reno—Very bright rainbow on the 14th. O. F. HEIZER.

Lewers' Ranch—Plowing in the valley the first week of the month.

E. R. LEWERS.

Golconda—Heavy wind from the northwest on the 11th; good rains on the 25th and 26th; snow on the 27th.

L. L. MUSHETT.

Mill City—High wind began about 12:30 p. m., on the 11th, continuing until after midnight; it blew very hard and seemed to come from the west and southwest.

W. R. RICH.

Wood—Prospects for water somewhat improved, but the precipitation was 1.26 inches less than for February, 1901.

A. H. WISEMAN.

Owyhee—While considerable snow fell during the month, it melted as fast as it fell, for the most part, and could not be measured. Grass starting.

HENRY J. HUFF.

Quinn River Ranch—During the last few days of the month, it appears from a distance to have been snowing continually in the mountains. It is to be hoped that appearances are not deceptive.

F. M. PAYNE.

SNOWFALL IN THE MOUNTAINS.

According to the reports of correspondents in the subjoined table it appears that the snowfall of February, 1902, was nearly normal and quite evenly distributed over the State, being heaviest in the western and northwestern sections. Moderately high temperature prevailed for Feb-

ruary, and most of the snow melted as it fell in the valleys and on the lower foothills. The average depth of snow in the valleys and foothills on the last day of the month ranged from 5 to 10 inches, with deep drifts in the higher mountain ranges. Since the close of the month the State has been visited with the heaviest snowfall in many years, and at this writing (March 14th) there is now more snow in the mountains than at the corresponding date of 1901. The outlook for a good water supply during the coming season is excellent.

CORRESPONDENTS' REMARKS.

Carson River Watershed.

SHERIDAN—Less snow in the mountains than usual at the end of February.
RICHARD COOK.

FALLON—Six to 10 inches of snow on surrounding foothills.

J. W. FERGUSON.

VIRGINIA CITY—More than the average amount of snowfall for February; about 6 feet deep in the mountains.
POSTMASTER.

GENOA—About average snowfall for February.
W. S. JOHNSON.

DAYTON—More snowfall this month than the average amount for February.
THOS. P. MACK.

LEETVILLE—The snowfall is above the average for February.

W. F. KAISER.

CARSON CITY—Considerable snow fell in the mountains the latter part of the month.
J. H. SMITH.

FRANKTOWN—Average depth of snow in the mountains about 5 feet.

E. R. LEWERS.

Truckee Watershed and Lake Tahoe Drainage.

FLORISTON—About average snowfall during month; 84 inches on summit.
POSTMASTER.

BOCA—Snowfall below the February average; about 10 feet on the summit.
POSTMASTER.

RENO—Snowfall of the month is slightly less than the average for February; about 10 feet on the summit.
O. F. HEIZER.

Walker River Watershed.

SCHURZ—About average snowfall for February. Probably 2 feet on the mountains.
R. M. NORRIS.

WABUSKA—More than the average for February. Plenty of water for the coming season is now assured.
J. G. YOUNG.

PINE GROVE—Less than the average for February. Waterflow will probably be less this year.
E. W. STEWART.

Reese River Watershed.

EUREKA—Without we can get a great deal more snow the waterflow will be less than last season.
D. M. BROY.

GALENA—More than the average snowfall this month. Waterflow will be good this year.
G. S. MOORE.

DEAN—The waterflow the coming season will be about the same as last year.
POSTMASTER.

SPENCER—Light snowfall so far this winter. Waterflow promises to be less than last season.
J. H. SPENCER.

AUSTIN—Unless we have more snow there will be no water to speak of.
G. M. DYER.

Humboldt Watershed.

ELKO—Plenty of snow in the hills and mountains near here.

C. H. SPROULE.

WOOD—The snowfall during the month was less than the usual amount for February.
A. H. WISEMAN.

PARADISE VALLEY—The waterflow the coming season promises to be greater than last season.
T. J. BRADSHAW.

HUMBOLDT—Less snow than at corresponding date last year.

J. J. CULLEN.

BEOWAWE—Less snow in the mountains than at corresponding date last year.
E. F. WOLEVER.

HUNTINGTON—Drifts 4 to 6 feet in cañons.
A. W. BROWNE.

HALLECK—Less snow in the mountains than at corresponding date last year.
H. J. FORD.

CRANE'S RANCH—Snowfall about the same as last year.
WM. T. CRANE.

LEE—More snow in the mountains than last year.
JENNIE WILLIAMS.

MILL CITY—Surrounding mountains are all covered with snow.

W. R. RICH.

GOLCONDA—Probably 4 feet on the level, with deep drifts.

L. L. MUSHETT.

PALISADE—More snow in the mountains than at corresponding date last year.
J. A. FERRARO.

REED'S STATION—The stock of snow in the mountains is about the same as last year.
A. T. REED.

BULLION—About 3 feet of snow in the mountains.
F. J. FRANK.

WILLOW CREEK—More snow in the mountains than at corresponding date last year.
CARRIE C. ROBERTI.

WINNEMUCCA—The present outlook is for a better water supply the coming season than we had last season.
J. C. HAYDEN.

TABLE OF SNOWFALL.

Depth in Inches.

Station.	County.	Compared with average for February.	On ground in valley February 28th.	At or near summit of mountains.	Prospective waterflow compared with last season.
Humboldt Watershed:					
Beowawe	Eureka	Less	2	12	Less
Bullion	Elko	Less	18	36	Same
Crane's Ranch	Elko	Less	6	84	Same
Elko	Elko	Greater	6	48	Greater
Golconda	Humboldt	Greater	Trace	14-16	Same
Halleck	Elko	Less	1	24	Less
Humboldt	Humboldt	Average	0	60-72	Same
Huntington	Elko	Less	14	48-60	Greater
Lee	Elko	Greater	8	36-48	Same
Mill City	Humboldt	Greater	0	18	Greater
Palisade	Humboldt	Average	7	6	Greater
Reed's Station	Elko	Less	3	12	Less
Wells	Elko	Greater	Trace	12	Greater
Willow Creek	Humboldt	Greater	1½	72-120	Greater
Winnemucca	Humboldt	Greater	1½	72-120	Greater
Wood	Elko	Less	7	12	Less
Carson River Watershed:					
Carson City	Ormsby	Average	5	120	Same
Dayton	Lyons	Greater	None	18	Greater
Fallon	Churchill	Average	None	16-10	Same
Franktown	Washoe	Less	24	60	Same
Genoa	Douglas	Average	6	60	Same
Leetville	Churchill	Greater	None	18	Greater
Sheridan	Douglas	Less	None	12	Less
Virginia City	Storey	Greater	36	72	Greater
Truckee Watershed and Lake Tahoe Drainage:					
Boca (Cal.)	Nevada	Less	24	120	Same
Floriston (Cal.)	Eldorado	Average	18	84	Greater
Hobart (Cal.)	Eldorado	48	Trace	120	Same
Reno	Washoe	Less	Trace	120	Same
Walker River Watershed:					
Pine Grove	Esmeralda	Less	2	3-4	Less
Schurz	Esmeralda	Average	None	24	Less
Wabuska	Lyons	Greater	None	36	Same
Reese River Watershed:					
Austin	Lander	Less	2	5-6	Less
Dean	Lander	Less	18	24	Same
Eureka	Eureka	Less	6	10	Less
Galena	Lander	Greater	18	24	Same
Spencer	Lander	Less	2	6	Less
Marlette Lake Drainage:					
Marlette Lake	Washoe	Greater	60	66	Same

† In gulches. ‡ In foothills.

AVERAGE HOURLY WIND MOVEMENT FOR FEBRUARY, 1902.

75th Meridian Time.

Station.	1 a.m.	2	3	4	5	6	7	8	9	10	11	12 noon	1 p.m.	2	3	4	5	6	7	8	9	10	11	12 midn't	For the month.
Carson City	6.7	6.1	6.8	7.3	7.6	8.5	8.5	8.3	7.7	6.9	6.4	6.6	8.6	9.0	10.4	12.7	12.7	12.6	10.8	10.6	8.5	6.9	7.4	7.2	8.5
Winnemucca	8.3	9.1	9.6	8.7	8.8	9.0	9.8	9.6	8.9	8.8	9.6	10.2	10.5	11.7	12.1	13.6	15.0	14.0	13.7	12.5	10.1	8.9	9.1	8.8	10.4
Modena (Utah)	9.6	9.1	9.5	9.6	9.0	8.5	8.7	9.0	9.0	9.1	9.5	9.0	10.6	10.6	11.6	13.0	14.2	14.2	13.8	12.5	10.4	9.8	9.4	7.9	10.2

PREVAILING HOURLY WIND DIRECTION FOR FEBRUARY, 1902.

Station.	1 a.m.	2	3	4	5	6	7	8	9	10	11	12 noon	1 p.m.	2	3	4	5	6	7	8	9	10	11	12 midn't	For the month.
Carson City	S	S	S	S	NW	S	S	S	S	S	S	SW	S	SW	SW	SW	SW	SW	SW	W	W	S-SW	S	NW	SW

CLIMATOLOGICAL DATA FOR FEBRUARY, 1902.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (inches).							Remarks.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	In part from the normal.	Greatest in 24 hours.	Total snowfall (accumulated).	Number rainy days.	Number clear days.	Number partly cloudy days.		Number of days.	Precipitation in inches.
Northern Section.																			
Battle Mountain—1	Lander	4,511	32	35.0	+2.0	68	21	7	2		0.68	-0.09	0.30	3.0	3	5	9	11	Agent So. Pacific Co.
Beoway	Eureka	4,635	32	40.7	+9.5	67	16	5	2		1.00	+0.29	0.69	7.0	3				Agent So. Pacific Co.
Carlin	Elko	4,897	32	36.3	+2.0	55	25	8	1		1.10	+0.15	0.60	6.0	2				Agent So. Pacific Co.
Crane's Ranch†	Elko	5,350	15								1.83	+0.91	0.51	5.7	9	15	2	11	W. T. Crane
Elko—1	Elko	5,063	32	31.9	+7.0	56	16	16	3	62	1.21	+3.19	1.20	23.5	8	11	9	8	C. H. Sproule
Penelon	Elko	6,128	15	32.6	+5.8	59	3	0	3		0.69	-0.41	0.30	7.0	6	11	2	15	Agent So. Pacific Co.
Golconda—2	Humboldt	4,392	24	10.8	+5.8	65	11	16	2		1.46	+0.90	0.80	2.0	4	11	3	14	Agent So. Pacific Co.
Halleck	Elko	5,229	30	33.3	+7.3	56	11	13	4		0.99	-0.33	0.20	7.8	9	7	0	21	Agent So. Pacific Co.
Humboldt—1	Humboldt	4,236	31	39.6	+5.0	66	16	12	3	35	0.34	-0.46	0.32		2	5	4	19	Agent So. Pacific Co.
Lee	Elko		4								2.98	+2.00	0.69	19.0	10	9	6	13	Miss Jennie Williams
Lovelock—1	Humboldt	3,977	1	41.5	+6.5	75	15	12	14	48	0.39	-0.14	0.19		3	12	4	12	W. C. Pitt
Lovelock	Humboldt	3,977	11	36.0		68	20	10	5		*1.00	+0.47	0.80		2	12	4	12	Agent So. Pacific Co.
Mill City	Humboldt	4,225	14	41.2	+7.2	62	16	13	3		*0.55		0.40		2	8	1	19	Agent So. Pacific Co.
Owyhee—1	Elko	6,000	3	35.4		57	11	9	3	51	1.10		0.22	1.8	13	6	6	16	Henry J. Huff
Palisade	Eureka	4,821	21	33.4	+3.8	61	23	2	3		2.98	+1.85	0.76	13.0	7	10	1	17	Agent So. Pacific Co.
Quinn River Ranch¶—1	Humboldt	4,850	1	36.8		65	17	1	1	40	1.66		0.31	7.1	15	3	10	15	F. M. Payne
Tecoma	Elko	4,812	25	35.3	+6.6	60	28	0	2		*0.50		0.50	7	1	4	9	15	Agent So. Pacific Co.
Toano—2	Elko	5,975	33	33.3	+6.8	58	10	0	3		*0.45		0.20	4.5	4	7	4	17	Agent So. Pacific Co.
Wells	Elko	5,623	31	33.7	+7.2	51	10	4	3		0.89	-0.18	0.40	8.0	3	6	1	21	Agent So. Pacific Co.
Winnemucca—1	Humboldt	4,432	24	38.0	+5.0	67	16	5	2	37	1.47	+0.56	0.52	2.9	10	4	5	19	U. S. Weather Bureau
Wood—1	Elko	6,000	3	33.8		56	16	3	3	29	1.88		0.42		9	4	8	16	A. H. Wiseman
Means				36.4	+5.8	75	15	16	3	62	1.50	+0.59	1.20	7.9	7	8	5	15	sw
Eastern Section.																			
Ely—1	White Pine	6,000	15	33.5	+4.4	60	17	2	2	36	0.65	-0.65	0.25	6.5	4	6	10	12	M. B. Garaghan
Hamilton—1	White Pine	7,977	2	30.6		54	16	10	1	30	3.47		1.00	34.7	6	5	15	8	Mrs. J. F. Beck
Monitor Mill¶—1	White Pine	6,400	4	32.3		55	16	4	27	30	0.46		0.20	6.3	4	0	12	16	Jas. B. Orr
Means				32.1	+4.4	60	17	2	2	36	1.53		1.00	15.8	5	4	12	12	
Central Section.																			
Austin—1	Lander	6,594	14	35.1	+5.2	58	17	12	1	40	1.10	+0.05	0.53		4				G. M. Dyer
Potts—1	Nye	6,990	10	38.0	+6.4	60	20	10	2	32	0.57	-0.41	0.16	7.0	4	9	4	15	Miss Bessie Potts
Means				36.6	+5.8	60	20	10	2	40	0.81	-0.18	0.53	7.0	4	9	4	15	s
Western Section.																			
Carson City—1	Ormsby	4,660	23	40.6	+4.1	67	16	13	3	39	2.98	+1.49	1.11	10.6	14	6	14	8	C. W. Friend
Carson City (W. B.)—1	Ormsby	4,720	13	40.0	+3.5	66	16	15	3	36	*1.71	+0.22	0.82	10.3	10	9	6	13	U. S. Weather Bureau
Hot Springs—2	Churchill	4,072	15	42.2	+8.6	68	16	12	3						5	20	3	nw	Agent So. Pacific Co.
Lewers' Ranch†—1	Washoe	5,200	15	41.4	+6.8	66	16	18	3	33	7.19	+3.91	2.60	31.0	16	2	17	9	E. R. Lewers
Martin's Ranch‡—1	Douglas	4,830	4	41.8	+5.3	69	16	13	2	43	1.84	+0.35	0.57		7	12	6	10	Mrs. J. H. Martin
Reno—1	Washoe	4,484	32	39.6	+4.9	62	16	10	3	38	1.40	+0.32	0.61	4.2	8	6	10	12	State University
Verdi—2	Washoe	4,895	13								0.23		0.10	1.0	4	4	3	21	Agent So. Pacific Co.
Wabaska				41.1		71	16	8	3	40	0.97	+0.43	0.43		4	15		13	J. E. Twaddle
Wadsworth—1	Washoe	4,077	31	41.8	+3.4	68	17	15	3	38	0.97	+0.43	0.43		4	15		13	Agent So. Pacific Co.
Means				41.1	+5.2	71	16	8	3	43	2.44	+1.30	2.60	11.4	9	7	10	11	sw
Southern Section.																			
Belmont—1	Nye	8,132	11																W. N. Granger
eCandelaria—1	Esmeralda	5,783	13	41.4	+5.7	72	16	21	13	35			0.50		4	6	5	12	A. G. Draper
Hawthorne—1	Esmeralda	4,569	15																T. G. Watterson
Palmetto—1	Esmeralda	6,500	13	35.4	+3.7	62	10	3	3	48	1.10	-0.64	0.60	11.0	3	10	13	5	Wm. Oothout, Jr.
Silver Peak—1	Esmeralda	4,382	7	38.2		64	11	12	3	41					6	9	13	8	H. Latter
Sodaville—1	Esmeralda	4,665	4	41.6		70	12	12	3		0.34		0.22		2	9	6	13	Agent So. Pacific Co.
Tybo—1	Nye	6,500	11	33.2	-0.8	59	14	9	2	33	0.90	-0.09	0.30	11.0	4	2	22	4	Jas. B. Gilmore
Means				35.9	+2.9	72	16	3	3	48	0.78	-0.36	0.60	11.0	3	7	12	9	s
State Means				36.4	+4.8	75	15	16	3	62	1.42	+0.34	2.60	10.6	6	7	9	12	sw
Miscellaneous.																			
Modena (Utah)	Iron	5,479		34.9		65	16	0	3	41	0.32		0.25	0.9	3	4	12	12	U. S. Weather Bureau

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; 2, observations at 7 a. m. and 2 p. m.; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates, T indicates trace of precipitation. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

* Not considered in computing State or District means.

† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. ¶ Postoffice—Ely. ¶ Postoffice—Amos.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR FEBRUARY, 1902.

Stations.	Day of Month.																															Monthly means.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Austin	Max. 36	38	35	37	40	44	42	43	46	52	55	53	51	46	57	56	58	49	44	48	47	45	43	41	39	40	38	32				44.6	
Battle Mountain	Min. 12	15	20	24	27	23	21	22	31	32	35	30	27	29	33	29	18	22	33	31	30	28	26	23	21	23	25	20				25.4	
Candelaria	Min.					54	46	48	55	62	68	57	55	59	65	72	57	52	56	52	50	55	47	44	39	47	49	45				53.7	
Carlin*	Max. 35	37	39	41	43	44	44	40	50	50	50	51	50	52	62	50	50	50	50	53	53	54	53	55	55	54	55	54	55				48.3
Carson City	Min. 8	15	17	19	25	25	32	30	33	35	34	34	34	35	30	35	35	35	35	30	30	28	29	28	28	28	28	28	28				30.2
Carson City	Max. 54	50	47	47	49	51	49	50	56	63	60	48	45	53	61	67	54	52	55	54	51	48	48	47	40	47	40	43				51.2	
Carson City (W. B.)	Min. 26	28	13	32	37	29	36	38	36	28	29	20	27	41	38	28	32	25	21	36	27	33	29	32	30	31	29	39	40				30.0
Elko	Max. 52	48	45	46	49	50	47	49	55	61	57	44	44	51	61	66	45	30	54	53	52	49	48	46	47	37	38	40				49.4	
Ely	Max. 38	41	46	47	43	44	48	46	49	38	32	30	20	28	54	56	46	49	51	56	51	50	49	47	44	48	49	40	29				48.4
Halleck*	Min. 11	12	16	2	14	12	20	24	25	27	30	26	27	48	49	52	58	60	45	50	51	44	48	42	43	36	35	38				21.6	
Hamilton	Max. 33	37	40	37	44	45	46	49	49	55	56	40	48	49	52	58	63	60	45	47	50	51	44	48	42	43	36	35	38				45.9
Humboldt	Min. 10	2	10	15	16	22	25	29	30	31	30	15	20	26	27	29	28	13	20	22	27	19	30	21	28	28	16	2				21.1	
Hawthorne	Max. 34	36	35	33	37	44	45	42	47	53	56	40	40	48	47	42	38	37	41	47	52	41	46	41	47	38	35	34				42.0	
Lewers' Ranch	Min. 22	3	13	13	30	29	30	28	32	38	35	31	27	28	36	30	32	27	28	29	34	32	33	30	31	33	32	28				26.1	
Lovelock	Max. 32	35	36	34	38	41	39	41	45	51	46	38	35	39	46	54	45	49	52	41	47	37	35	33	31	33	32	28				39.8	
Martin's Ranch	Min. 10	15	17	16	21	25	20	24	29	31	23	15	23	15	26	30	25	19	27	25	21	23	21	20	20	21	14					21.5	
Monitor Mill	Max. 42	42	40	43	45	53	55	53	53	55	61	47	44	54	60	66	56	50	54	55	53	50	53	49	45	45	46	48				50.6	
Owyhee	Min. 23	13	12	13	35	32	36	37	36	34	36	26	17	28	30	34	38	33	19	20	23	25	30	32	34	33	34	35				28.5	
Palmetto	Max. 49	49	47	47	48	54	47	48	57	58	58	45	44	52	60	66	58	51	59	58	56	53	47	47	46	47	40	46				51.3	
Palisade*	Min. 28	21	18	29	34	35	36	34	35	58	61	55	50	60	75	72	60	55	61	56	58	54	57	50	50	43	54	48				31.4	
Pots	Max. 49	45	40	40	45	40	40	30	29	29	20	18	20	12	27	25	32	17	16	25	25	34	24	40	28	34	33	21				55.1	
Quinn River Ranch	Min. 20	58	55	50	56	55	48	51	59	65	63	54	48	50	63	69	59	54	61	55	60	55	50	47	43	43	43	28				54.5	
Reno	Max. 36	42	44	39	45	51	48	47	54	56	52	43	44	46	50	55	46	37	45	47	41	50	40	33	30	32	30	32				29.2	
Silver Peak	Min. 11	13	14	11	19	22	21	24	28	32	30	26	21	36	26	25	25	12	22	24	18	27	20	22	11	18	4	22				43.8	
Sodaville	Max. 29	44	37	36	37	43	42	40	46	49	57	47	37	45	53	56	55	39	46	49	49	46	42	43	41	30	27	35				43.8	
Tybo	Min. 16	10	12	20	21	25	20	26	32	34	30	33	26	24	30	40	38	36	35	36	30	29	30	31	30	26	20	18				27.4	
Verdi*	Max. 30	33	36	36	40	46	50	51	53	54	50	44	44	54	61	64	65	49	55	51	50	47	47	47	45	47	43					48.2	
Wabaska	Min. 1	9	1	9	21	28	31	34	33	32	33	28	16	27	34	39	25	19	27	29	35	28	37	29	30	29	28					25.3	
Wadsworth	Max. 47	51	48	48	50	52	50	52	56	61	55	45	49	53	56	62	53	49	53	54	55	52	51	52	47	41	50	41				51.2	
Winnemucca	Min. 14	13	10	20	22	30	34	30	36	34	41	30	20	25	38	35	23	23	39	30	30	29	30	36	30	30	28					28.1	
Wood	Max. 48	49	51	50	49	53	47	49	52	54	64	53	49	55	63	64	54	55	53	54	52	49	50	45	42	45	45					51.5	
Yuba	Min. 24	24	12	15	19	25	27	22	21	26	28	20	12	27	31	29	33	30	12	37	21	35	22	37	29	20	22					24.9	
Yuba	Max. 47	55	49	53	53	54	59	51	54	59	63	70	53	52	69	65	68	55	54	59	56	58	52	50	49	52	53					55.6	
Yuba	Min. 20	22	12	20	22	20	31	26	29	33	35	35	20	23	35	35	38	18	22	32	30	29	26	22	31	32						27.6	
Yuba	Max. 36	35	38	40	45	47	46	47	48	58	51	42	50	59	56	40	44	48	46	45	48	47	42	37	34	34	35					44.5	
Yuba	Min. 10	9	14	22	23	27	26	25	25	25	25	18	23	25	24	31	22	16	18	17	19	24	22	28	24	28	23	20				21.9	
Wabaska	Min.																																
Wadsworth	Max. 45	44	45	47	50	54	57	55	65	65	66	50	48	60	68	71	63	52	58	56	58	54	55	54	52	45	48	46				54.7	
Winnemucca	Min. 26	13	8	23	26	29	36	31	34	28	26	34	16	24	37	33	36	17	20	24	23	32	31	43	25	35	36	24				27.5	
Wood	Max. 42	44	45	43	46	51	54	52	52	62	64	63	48	60	62	63	68	52	53	58	58	55	54	54	54	56	48	48					29.3
Yuba	Min. 22	18	15	25	31	30	38	30	31	32	36	37	32	39	32	36	37	32	23	32	38	30	31	44	33	33	34	28				28.2	
Yuba	Max. 37	42	40	39	41	49	51	49	54	55	62	44	45	55	60	67	47	47	57	49	52	42	49	42	48	43	38	38				47.9	
Yuba	Min. 12	5	9	22	31	32	36	38	33	40	32	26	16	30	34	33	36	22	21	29	31	33	30	32	32	34	32	25				28.2	
Yuba	Max. 34	29	30	35	41	42	43	44	43	41	40	48	37	47	56	49	39	41	50	52	43	48	45	40	38	38	34					43.0	
Yuba	Min. 16	4	3	14	27	24	26	32	31	33	35	48	25	33	30	33	30	28	15	23	30	25	34	24	26	27	24					24.6	
Yuba	Max. 28	40	32	44	48	49	50	53	52	57	60	57	54	51	59	65	58	46	49	54	55	43	52	45	39	41	39	40				48.3	
Yuba	Min. 6	7	0	7	15	18	20	25	25	26	28	39	18	28	28	24	28	27	24	16	24	27	20	26	29	25	24					21.5	

*Extremes of temperature from readings of ordinary thermometer at 7 a. m., 2 p. m. and 9 p. m.

0 to $\frac{1}{2}$. $\frac{1}{2}$ to 1. 1 to 2. 2 to 5. Over 5.

Day of Month,

[illegible]

T indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA:

STATE PRINTING OFFICE, - - UNION LABEL - - ANDREW MAUTE, SUPT.

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR MARCH, 1902.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

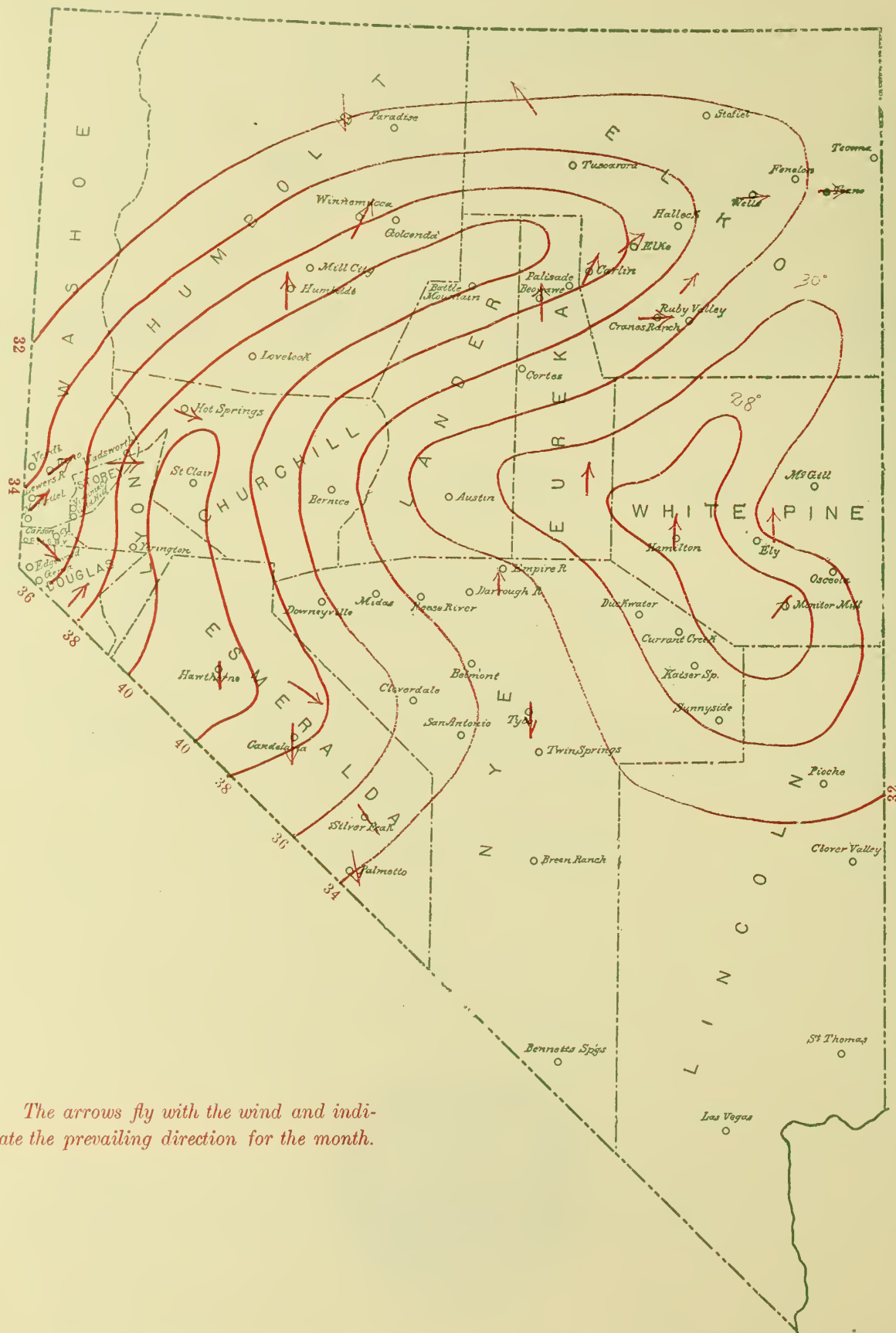
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR MARCH, 1902



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director.

CARSON CITY, NEVADA.

VOL. XVI.

CARSON CITY, NEVADA.

No. 3.

SUMMARY OF WEATHER CONDITIONS.

The most notable features of the weather during the month of March, 1902, were the unusually heavy snows and high winds on the 1st and 2d, and the uniformly low temperature which prevailed throughout the entire month. The temperature and precipitation were both below normal, except in the central portion of the State, where the temperature was slightly in excess of the March average. The maximum temperature of the month was generally recorded on the 31st, and the minimum from the 1st to the 4th. There was an average of 11 clear, 8 partly cloudy, and 12 cloudy days during the month. The weather conditions were favorable to stock interests and for farming operations over the greater part of the State.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.97 inches.

The highest pressure, 30.53 inches, was recorded at Carson City, on the 4th, and the lowest, 29.38 inches, at Modena, Utah, on the 13th.

The absolute range of pressure for the State was 1.20 inches.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the reports of thirty-six stations, was 35.2, or 2.9 below normal, and 3.7 lower than the average for the corresponding month of 1901.

By sections, the means were: Northern, 35.8; eastern, 27.4; central, 30.8; western, 36.8; southern, 37.6.

The highest monthly mean, 41.8, was recorded at Hawthorne, Esmeralda county.

The lowest monthly mean, 25.8, was recorded at Hamilton, White Pine county.

The highest temperature recorded during the month was 69, at Candelaria, Esmeralda county, on the 16th.

The lowest temperature recorded during the month was zero, at Ely, White Pine county, on the 3d.

The absolute range of temperature for the State was 69.

The greatest local daily range of temperature at stations equipped with self-registering thermometers was 47, at Martin's Ranch, Douglas county, on the 15th, and the least, 7, at Hamilton, White Pine county, on the 15th, and Hawthorne, Esmeralda county, on the 26th.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 1.47 inches, or 0.17 of an inch below normal, and 0.83 of an inch above the average for the corresponding month of 1901.

By sections, the averages were as follows: Northern, 1.15 inches; eastern, 2.90 inches; western, 1.45 inches; central, 3.18 inches; southern, 0.92 of an inch.

The greatest monthly amount, 5.40 inches, was recorded at Eureka, Eureka county, and the least, none, at Hawthorne, Esmeralda county.

The greatest amount recorded in any twenty-four consecutive hours was 2.40 inches, at Eureka, Eureka county, on the 9th.

The average depth of the snowfall for the State, in the valleys, was 14.7 inches.

Relative Humidity.

Carson City—8 a. m., 80 per cent.; 4 p. m., 69 per cent.; monthly mean, 69 per cent.

Winnemucca—8 a. m., 70 per cent.; 8 p. m., 64 per cent.; monthly mean, 63 per cent.

Modena (Utah)—8 a. m., 68 per cent.; 8 p. m., 37 per cent.; monthly mean, 53 per cent.

Wind and Weather.

The prevailing direction of the wind was from the southwest. The total movement of the wind at Carson City was 5,902 miles; Winnemucca, 7,370 miles, and at Modena, Utah, 7,862 miles. The maximum velocity at Carson City was 64 miles per hour, from the southwest, on the 21; Winnemucca, 60 miles per hour, from the southwest, on the 2d, and 43 miles per hour at Modena, on the 2d.

The average number of clear days was 11; partly cloudy, 8; cloudy, 12; days with .01 of an inch or more of precipitation, 6.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR MARCH DURING THE PAST FOURTEEN YEARS.

Year.	Mean.	Highest.	Lowest.	Average precipitation, inches and hundredths.
1889.....	41.1	85	12	1.45
1890.....	39.0	82	15	1.71
1891.....	38.9	78	2	1.55
1892.....	40.3	78	2	1.81
1893.....	35.9	85	21	1.90
1894.....	38.4	88	13	1.02
1895.....	37.7	80	23	0.82
1896.....	39.4	90	18	1.15
1897.....	30.9	80	19	1.39
1898.....	35.0	79	10	0.63
1899.....	38.6	79	4	1.83
1900.....	44.2	81	5	0.51
1901.....	38.9	90	0	0.59
1902.....	35.2	69	0	1.47

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Hail—Monitor Mill, 20th.

Lunar Halo—Lewers' Ranch, 22d.

Fog, Dense—Hamilton, 1st, 2d, 11th.

Thunderstorms—Ely, 20th; Monitor Mill, 20th.

Solar Halo—Candelaria, 21st; Carson City, 4th, 21st, 31st.

Sleet—Hamilton, 1st, 8th, 15th, 19th; Palmetto, 9th; Potts, 1st; Sodaville, 11th.

High Winds—Candelaria, 1st, 13th, 18th, 20th; Elko, 1st; Eureka, 1st; Golconda, 1st; Halleck, 15th; Hamilton, 1st, 2d, 3d, 15th; Lee, 13th, 23d; Lewers' Ranch, 1st, 2d, 3d; Potts, 1st, 3d, 4th, 7th, 8th, 13th; Owyhee, 2d; Sodaville, 15th, 29th; Wood, 3d, 6th, 13th, 21st, 26th, 28th; Palmetto, 1st, 13th, 14th, 15th, 22d, 24th; Carson City, 2d, 13th; Winnemucca, 2d.

OBSERVERS' REMARKS.

Beowawe—Strong wind from the south during night of the 1st.

E. F. WOLEVER.

Elko—Very wet month; ground just right to hold moisture and very little water went to waste.

C. H. SPOULE.

Lee—Considerable snow higher up in the valley and near the foothills, but in this part of the valley the snow is all gone, except in patches.

JENNIE WILLIAMS.

SNOWFALL IN THE MOUNTAINS.

The unusually light snowfall during December, January and the first half of February caused considerable anxiety among farmers and stockmen throughout the State over the prospects for a short water supply during the coming summer, but the heavy storms during the latter part of February and the first decade of March deposited vast quantities of snow in the several ranges and settled the water question for the coming season to the entire satisfaction of all concerned. Cool weather prevailed throughout the month, which was very favorable for the retention of the snow in the higher mountains. At the close of March the stock of snow

in the several ranges was about the same as at the corresponding date of 1901.

The majority of correspondents are of the opinion that the water supply will be equally as good, if not somewhat better, than last season.

CORRESPONDENTS' REMARKS.

Humboldt Watershed.

BEOWAWE—More snow than usual for March. E. F. WOLEVER.

BULLION—Heaviest March snowfall in past ten years. F. J. FRANK.

CARLIN—Farmers all happy; plenty of water this season.

W. C. OWENS.

CRANE'S RANCH—Plenty of water fore part of season, but probably a little scarce late in summer. WM. T. CRANE.

ELKO—There will be an abundance of water this year. J. M. MORROW.

GOLD CREEK (Hope Gulch)—Much less water this year than last year. All the snow below 7,000 feet will go off without causing stream flow.

CHAS. W. IRISIL.

GOLCONDA—Indications favorable for sufficient waterflow for all purposes. L. L. MUSHETT.

HALLECK—The mountains contain fully as much snow as last year.

H. J. FORD.

LOVELOCK—Indications are favorable for a good supply of water the coming season. W. C. PITT.

HUMBOLDT—Waterflow should be good this season. J. J. CULLEN.

LEE—There will be a greater amount of water this season than last year. JENNIE WILLIAMS.

MILL CITY—There is more snow in the mountains than at this time last year. W. R. RICH.

PALISADE—The waterflow promises to be better the coming season than it was last season. G. C. RANDALL.

REED'S STATION—I think that we will have more water this season than we had last. A. T. REED.

WELLS—Every one who is posted says that the waterflow during the coming season, as compared with last season, will be one-third greater.

PHIL S. TRIPLETT.

WILLOW CREEK—More snow in the mountains than at corresponding date last year. CARRIE C. ROBERTI.

WINNEMUCCA—The cool weather of the month has prevented the snow from melting, and I think the water supply will be better this season than for several years. J. C. HAYDEN.

Carson River Watershed.

CARSON CITY—The depth of snow in the mountains is about the same as at corresponding date last year. J. H. SMITH.

FALLON—Only about 1 inch of snow for March in this vicinity, melting in a few hours. J. W. FERGUSON.

GARDNERVILLE—There is about the same amount of snow in the mountains as there was at this time last year. J. H. MARTIN.

GENOA—Fifty per cent more snow in the mountains than at corresponding date last year. W. S. JOHNSON.

LEETVILLE—Indications favorable for a good water supply during the summer. W. F. KAISER.

SHERIDAN—About the usual amount of snow in the mountains.

RICHARD COOK.

Truckee Watershed and Lake Tahoe Drainage.

BIJOU—Probably 75 per cent more snow than at corresponding date last year. C. P. YOUNG.

FLORISTON—The waterflow promises to be better than usual the coming summer. Plenty of snow on the mountains. POSTMASTER.

VERDI—Indications favorable for more water than last season.

O. F. STACKPOLE.

Walker River Watershed.

MASON VALLEY—More snow than last year. There will be water enough for irrigation the coming season. J. G. YOUNG.

SCHURZ—More snow than last year. Prospects favorable for a good waterflow the coming season. R. M. NORRIS.

PINE GROVE—More snow in the mountains than at the end of March last year. E. W. STEWART.

YERINGTON—The waterflow will be equal to that of last year.

J. C. GALLAGHER.

WABUSKA—The waterflow the coming season will be about the same as last year. J. E. TWADDLE.

Reese River Watershed.

AUSTIN—I believe there will be more water this year than last year.

G. M. DYER.

DEAN—The snow is hard and firm and the drifts are very large and deep. POSTMASTER.

SPENCER—Less snow in the mountains than last year. J. H. SPENCER.

GALENA—The snow is pretty well drifted into the gulches where it is deeper than usual. G. S. MOORE.

INDIAN VALLEY—The season's snow in the mountains is below average. O. WARNER.

TABLE OF SNOWFALL.

Depth in Inches.

Station.	County.	Compared with average for March.	On ground in valley March 31st.	At or near summit of mountains.	Prospective waterflow compared with last season.
Humboldt Watershed:					
Beowawe	Eureka	Greater	None	24	Less
Bullion	Elko	Greater	18	60	Greater
Crane's Ranch	Elko	Greater	None	96	Greater
Carlin	Elko	Greater	None	196	Greater
Elko	Elko	Greater	None	60-120	Greater
Gold Creek	Elko	Less	4	40-48	Less
Golconda	Humboldt	Greater	None	48	Greater
Halleck	Elko	Greater	None	24	Same
Humboldt	Humboldt	Greater	None	24	Same
Lee	Elko	Greater	None	24	Greater
Lovelock	Humboldt	Greater	None	12	Greater
Mill City	Humboldt	Greater	None	36-48	Greater
Palisade	Eureka	Greater	None	14	Greater
Reed's Station	Elko	Greater	Trace	172	Greater
Wells	Elko	Average	None	72	Greater
Willow Creek	Humboldt	Greater	None	12-16	Greater
Winnemucca	Humboldt	Greater	None	12-24	Greater
Carson River Watershed:					
Carson City	Ormsby	Greater	None	196	Same
Gardnerville	Douglas	Greater	None	60	Same
Genoa	Douglas	Greater	None	66	Greater
Leetville	Churchill	Greater	None	24	Greater
Sheridan	Douglas	Greater	None	48	Same
Truckee Watershed and Lake Tahoe Drainage:					
Bijou (Cal.)	Nevada	Greater	24	196	Greater
Floriston (Cal.)	Nevada	Greater	None	84	Greater
Verdi	Washoe	Average	None	36	Greater
Walker River Watershed:					
Mason Valley	Lyon	Greater	None	48	Greater
Pine Grove	Esmeralda	Greater	3	24	Same
Schurz	Esmeralda	Greater	None	124	Greater
Wabuska	Esmeralda	Average	None	72	Same
Yerington	Lyon	Average	None	...	Same
Reese River Watershed:					
Austin	Lander	Average	1	18	Greater
Dean	Lander	Greater	18	36	Greater
Galena	Eureka	Greater	None	...	Greater
Indian Valley	Nye	Less	4	8	Less
Spencer	Lander	Less	None	18-20	Less
Marlette Lake Drainage:					
Marlette Lake	Washoe	Average	60	72	Greater

† In gulches.

AVERAGE HOURLY WIND MOVEMENT FOR MARCH, 1902.

75th Meridian Time.

Station.	1 a.m.	2	3	4	5	6	7	8	9	10	11	12 noon	1 p.m.	2	3	4	5	6	7	8	9	10	11	12 midn't	For the month.
Carson City	8.0	8.1	7.3	6.0	6.1	5.5	4.3	5.5	5.3	4.6	5.1	5.9	6.5	7.5	8.8	9.4	9.0	10.0	10.0	10.5	10.3	9.2	7.8	8.8	7.5
Winnemucca	7.7	7.7	7.3	8.5	9.9	10.2	9.5	9.9	9.2	9.0	9.3	8.5	10.1	12.5	12.0	11.7	12.5	12.5	11.9	10.9	9.8	9.4	8.7	8.8	9.9
Modena (Utah)	8.2	8.6	7.5	8.3	8.7	8.6	9.0	10.2	9.8	8.6	7.6	9.8	12.0	13.1	14.2	15.0	15.1	14.5	14.3	13.3	10.7	9.7	8.9	8.0	8.2

PREVAILING HOURLY WIND DIRECTION FOR MARCH, 1902.

Carson City	NW	NW	NW	NW	NW	SW	SW	N	NW	NW	SW	SW	NW	NW	NW	SW	SW	NW	SW	SW	NW	NW	NW	NW	NW
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CLIMATOLOGICAL DATA FOR MARCH, 1902.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).						Precipitation (inches),								Prevailing direction (w. l.).	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from normal.	Greatest in 24 hours.	Total snowfall (inches).	Number rainy days.	Number clear days.	Number partly cloudy days.			Number dry days.
Northern Section.																				
Battle Mountain—1	Lander	4,511	32	38.6	—2.3	68	31	20	7	—	0.85	+0.10	0.20	8.5	5	17	7	7	—	Agent So. Pacific Co.
Beowawe	Eureka	4,695	32	38.6	—2.3	68	31	20	7	—	0.90	+0.15	0.10	9.0	1	0	0	31	s	Agent So. Pacific Co.
Carlin	Elko	4,897	32	36.0	+0.5	50	25	10	1	—	0.10	—0.59	0.20	1.0	2	25	0	6	sw	Agent So. Pacific Co.
Crane's Ranch†	Elko	5,350	15	—	—	—	—	—	—	—	1.61	—0.03	0.41	14.2	10	9	6	16	w	W. T. Crane
Elko—1	Elko	5,063	32	35.9	+0.6	60	10	8	7	44	3.75	+2.93	1.20	35.5	8	10	11	10	sw	C. H. Sproule
Fenelon	Elko	6,128	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Agent So. Pacific Co.
Golconda—2	Humboldt	4,392	24	38.0	—4.5	53	7	20	29	—	0.70	+0.11	0.20	7.0	4	—	—	—	—	Agent So. Pacific Co.
Halleck	Elko	5,229	30	32.7	—3.2	50	17	12	1	—	0.95	+0.11	0.30	9.5	7	7	0	21	—	Agent So. Pacific Co.
Humboldt—1	Humboldt	4,236	31	37.6	—4.4	64	31	14	28	35	0.68	+0.06	0.16	6.0	4	16	1	14	s	Agent So. Pacific Co.
Lee	Elko	—	4	—	—	—	—	—	—	—	2.97	—	0.60	37.5	12	8	11	12	sw	Miss Jennie Williams
Lovelock—1	Humboldt	3,977	1	—	—	—	—	—	—	—	0.13	—0.05	0.09	1.3	2	20	3	8	—	W. C. Pitt
Lovelock	Humboldt	3,977	11	38.6	—5.2	67	11	20	14	—	0.40	+0.22	0.40	4.0	1	—	—	—	—	Agent So. Pacific Co.
Mill City	Humboldt	4,225	14	38.2	—2.6	60	30	20	3	—	0.35	—0.27	0.30	3.5	2	14	1	16	—	Agent So. Pacific Co.
Owyhee—1	Elko	6,000	3	31.5	—	53	31	10	29	26	0.77	—	0.50	10.8	12	4	9	18	se	Henry J. Huff
Palisade	Eureka	4,821	21	33.0	—4.6	55	18	9	4	—	1.85	+1.14	0.60	18.5	7	10	3	18	—	Agent So. Pacific Co.
Quinn River Ranch¶—1	Humboldt	4,850	1	36.3	—	60	31	18	73	—	0.69	—	0.30	—	7	2	16	13	n	F. M. Payne
Tecoma—2	Elko	4,812	25	41.2	—	55	12	30	3	—	0.60	+0.18	0.30	6.0	4	—	—	—	—	Agent So. Pacific Co.
Toano—2	Elko	5,975	33	33.0	—1.5	52	31	22	4	—	1.15	+0.28	0.50	11.5	5	11	9	11	w	Agent So. Pacific Co.
Wells	Elko	5,623	31	33.1	—3.1	54	10	18	3	—	2.20	+1.13	0.40	22.0	6	3	0	28	w	Agent So. Pacific Co.
Winnemucca—1	Humboldt	4,432	24	35.3	—4.6	62	31	14	29	34	0.46	—0.42	0.16	3.1	8	7	5	19	sw	U. S. Weather Bureau
Wood—1	Elko	6,000	3	30.8	—	61	31	4	1	41	1.25	—	0.26	15.5	8	5	18	8	—	A. H. Wiseman
Means		—	—	35.8	—2.9	68	31	1	1	44	1.15	+0.34	1.20	12.2	6	10	6	15	sw	—
Eastern Section.																				
Ely—1	White Pine	6,000	15	29.6	—2.5	57	31	0	3	40	2.25	+0.22	1.00	22.5	13	1	11	19	s	M. B. Garaghan
Hamilton—1	White Pine	7,977	2	25.8	—	59	31	5	7	44	4.15	—	1.00	41.5	8	6	14	11	s	Mrs. J. F. Beck
Monitor Mill||—1	White Pine	6,400	4	26.8	—	50	31	3	9	31	2.30	—	0.46	18.2	10	3	21	7	sw	Jas. B. Orr
Means		—	—	27.4	—2.5	59	31	0	3	44	2.90	+0.22	1.00	27.4	10	3	15	13	s	—
Central Section.																				
Austin—1	Lander	6,591	14	30.4	—1.2	53	31	10	14	29	1.51	+0.13	0.56	0.0	7	—	—	—	—	G. M. Dyer
Eureka—1	Eureka	—	—	29.2	—	51	18	9	29	40	5.40	—	2.40	54.0	6	9	13	9	s	D. M. Broy
Potts—1	Nye	6,990	10	32.8	+2.4	55	31	8	14	30	2.62	—1.79	0.75	27.5	11	4	7	20	s	Miss Bessie Potts
Means		—	—	30.8	+0.6	55	31	8	14	40	3.18	—0.83	2.40	27.2	8	6	10	15	s	—
Western Section.																				
Carson City—1	Ormsby	4,660	23	35.5	—5.7	64	31	1	4	42	1.66	+0.33	1.14	26.8	9	15	12	4	sw	C. W. Friend
Carson City (W. B.)—1	Ormsby	4,720	13	35.1	—6.1	61	31	4	4	38	1.25	—0.08	0.98	15.8	8	20	6	5	nw	U. S. Weather Bureau
Hot Springs—2	Churchill	4,072	15	—	—	—	—	12	4	—	—	—	—	—	18	13	0	nw	Agent So. Pacific Co.	
Lewers' Ranch†—1	Washoe	5,200	15	35.4	—4.0	63	30	10	3	38	3.33	+0.28	1.50	26.5	11	8	22	1	sw	E. R. Lewers
Martin's Ranch‡—1	Douglas	4,830	4	38.3	—2.9	68	31	7	4	47	1.07	—0.26	0.69	9.5	5	21	4	6	sw	Mrs. J. H. Martin
Reno—1	Washoe	4,484	32	33.6	—7.4	61	30	7	4	41	1.73	+1.08	1.50	15.5	4	14	7	10	sw	State University
Verdi—2	Washoe	4,895	13	36.2	+3.5	58	7	12	73	—	—	—	—	—	18	0	13	sw	Agent So. Pacific Co.	
Wabuska—1	—	—	—	40.6	—	68	31	23	2	40	0.40	—	0.40	4.0	1	5	15	11	—	J. E. Twaddle
Wadsworth—1	Washoe	4,077	31	39.4	—5.6	66	17	18	4	42	0.70	+0.39	0.70	7.0	1	25	0	6	w	Agent So. Pacific Co.
Means		—	—	36.8	—4.0	68	31	1	4	47	1.45	+0.24	1.50	15.0	6	16	9	6	sw	—
Southern Section.																				
Belmont—1	Nye	8,132	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	W. N. Granger
Candelaria—1	Esmeralda	5,783	13	37.3	—2.8	69	16	14	14	39	0.45	+0.17	0.25	4.5	2	13	8	10	n	A. G. Draper
Hawthorne—1	Esmeralda	4,569	15	41.8	+1.2	63	19	20	2	29	0.00	—0.35	0.00	0.0	0	18	2	11	n	T. G. Watterson
Palmetto—1	Esmeralda	6,500	13	33.5	0.0	59	31	2	3	39	2.90	+0.39	0.85	29.0	7	15	6	10	n	Wm. Oothout, Jr.
Rioville	Lincoln	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Daniel Bonelli
Silver Peak—1	Esmeralda	4,382	7	39.6	—	63	31	17	4	—	0.30	—	0.25	0.5	2	10	10	11	nw	H. Latter
Sodaville—1	Esmeralda	4,635	4	40.5	—	65	19	20	15	37	0.15	—	0.15	7	1	18	9	4	nw	Agent So. Pacific Co.
Tybo—1	Nye	6,500	11	32.7	—3.5	59	31	9	24	37	1.71	—0.80	0.55	21.0	6	9	20	2	n	Jas. B. Gilmore
Means		—	—	37.6	—1.2	69	16	2	3	39	0.92	—0.15	0.85	9.2	3	14	9	8	n	—
State Means		—	—	35.2	—2.9	69	16	0	3	47	1.47	+0.17	2.40	14.7	6	11	8	12	sw	State Means
Miscellaneous.																				
Modena (Utah)	Iron	5,479	—	33.6	—	61	31	8	25	41	0.51	—	0.33	10.3	6	8	14	9	w	U. S. Weather Bureau

Letters of alphabet indicate number of days record missing, as "a" one day, "e" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; 2, observations at 7 a. m. and 2 p. m.; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates, T indicates trace of precipitation. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

* Not considered in computing State or District means.

† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. || Postoffice—Ely. ¶ Postoffice—Amos.

*Extremes of temperature from readings of ordinary thermometer at 7 a. m., 2 p. m., and 9 p. m.

WASHOE

HUMBOLDT

CHURCHILL

ESMERALDA

DOUGLAS

STOREY

WHITE PINE

LINCOLN

SCALE OF SHADES - Inches.

0 to 1/2. 1/2 to 1. 1 to 2. 2 to 5. Over 5.

0 to $\frac{1}{2}$. $\frac{1}{2}$ to 1. 1 to 2. 2 to 5. Over 5.

Day of Month.

Stations.	Day of Month.																															Total.		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Northern Section.																																		
Battle Mountain	.15	T	.30			T							.30	.10						.10					.20	.10							.085	
Beowawe													.10	.20											.40								.090	
Carlin						.01	T	.20					.16	.08	.12	T			.08	T	.18			.12	.25	T							.040	
Crane's Ranch			.17			T		T	.44				.80	.40	.70				.10					.40	1.20	T							1.61	
Elko	.05		T			T		.10	T																								3.75	
Fenelon																																	.070	
Golconda	.20	.20	T									.20	.10	T				.05							T								.070	
Halleck		.05										.30	.03	.10									.07	.30	.10								.035	
Humboldt	.46	.12																						T									.008	
Lee	.05		.60			T		T	.55	T		.30	.05	.25				.05	.14	.16				.40	.41	.01							2.97	
Lovelock																																	.013	
Mill City	T	.04						T														T	.09	T	T								.035	
Owyhee	.03	.05	.02			.05		.02				.06	.05	.13				.01		.30			.03	T	T			T					.077	
Palsade	.10	.50						T				.20	.10	T					.05	.05			.30	.60								1.85		
Palisade													.01																				.185	
Quinn River Ranch	.05	.30				.03							.01						.04	.02	.24												.069	
Tecoma		T											T	.05				.20				.05			.30								.060	
Tono		.05							.15			.05						.30		.40			.40		.40								1.15	
Wells												.30	.30					.40															2.20	
Winnemucca	T	.16	.05			T		.12	.01	T		.04						.12		T		.02	.05	.01	T								.046	
Wood		.14				.11			.26			.14										.05		.24									1.25	
Eastern Section.																																		
Ely	.10	.20				.10			1.00	.10		.10	.10				.05		.10	.05			.10	.10	.15								.225	
Hamilton	.20	T						.65	1.00		T		.15				.45		.45	T		.30	.20	.100									4.15	
Monitor Mill			.11			.22			.46			T					.16	.14				.27	.31	.24	.33								.230	
Central Section.																																		
Austin	.15								.39																								1.51	
Eureka	.20	T	.30			T			2.40			T	.15				.17		.90				.06	.56	.03								3.40	
Potts	.08	T	.02	.04			T	.75				.10					.65	.20	.03			.30	.25	.20								2.62		
Western Section.																																		
Carson City	.95	.23	.01			T		.18	.03			.03	T							.14	.02	.07		T								1.66		
Hot Springs																																	3.33	
Levers' Ranch	.30	1.50	.05		.13			.70				.14							.05	.10	.30		.02	.04									1.07	
Martin's Ranch	.80	.69					.14					.03									T												1.73	
Reno	1.50	.16	.03					.04																									T	
Verdi											T											T											.040	
Wabaska	.40																								T								.070	
Wadsworth	.70																																	
Southern Section.																																		
Belmont																																		.045
Candelaria	.25	T						T	T			.20							T					T									.000	
Hawthorne																																	2.90	
Palmerito	.80							.30	.85	T		T					T		.20	T	T	.30	T	.35	.10									
Rioville																																		
Silver Peak	T								.25															.05	T								.030	
Sodaville		T							T									.15															.015	
Tybo	.35							.30				T	.15					.15			.21			.55	T								.071	
Miscellaneous.																																		
Modena (Utah)		.06	T			.03			.02	.02				.08							T	T	.33	T									.054	

f indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA:

STATE PRINTING OFFICE, - UNION LABEL - ANDREW MAUTE, SUPT.

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR APRIL, 1902.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

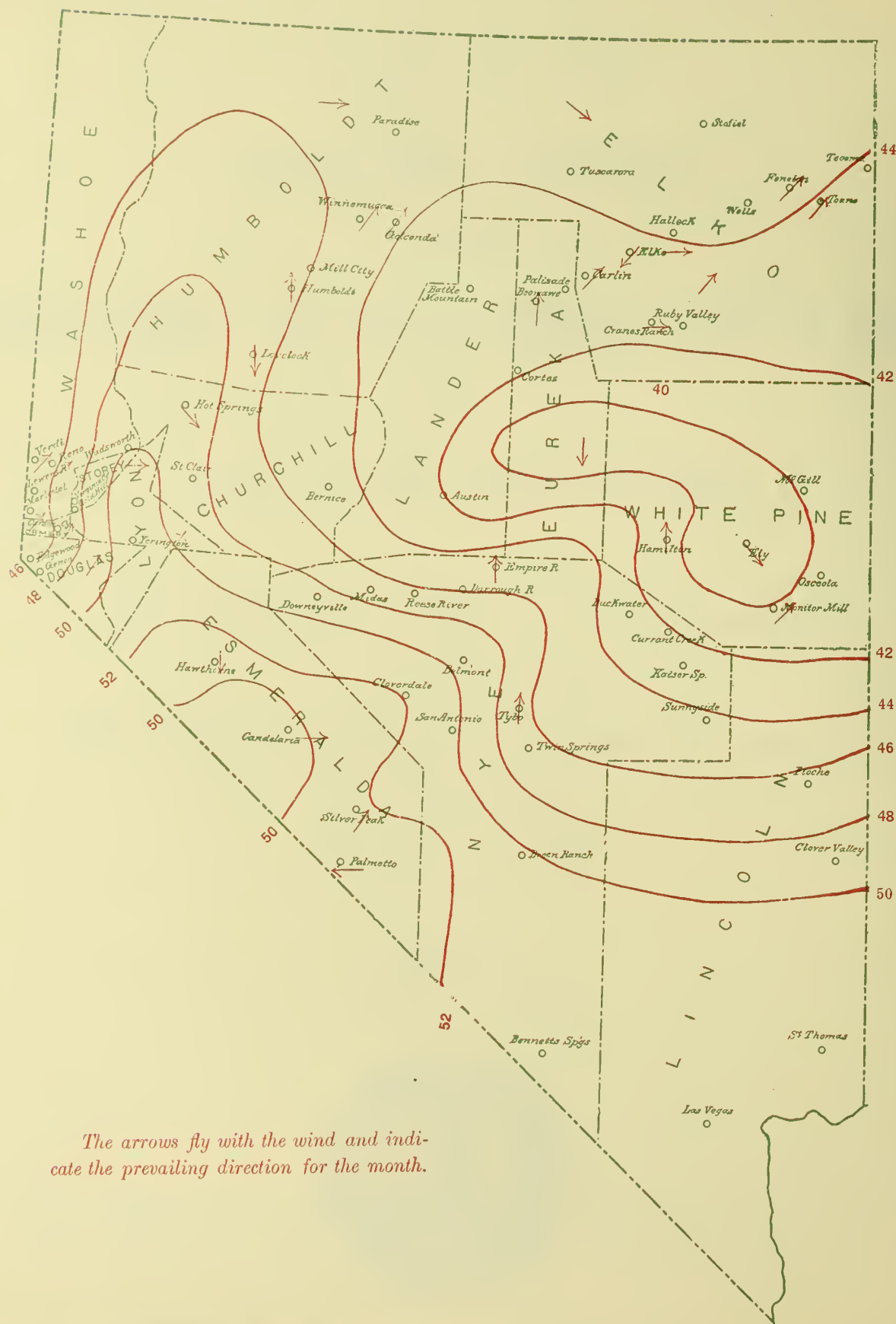
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MONTHLY MEAN TEMPERATURE FOR APRIL, 1902



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL. XVI.

CARSON CITY, NEVADA.

No. 4.

SUMMARY OF WEATHER CONDITIONS.

The weather conditions for April, 1902, varied but little from normal. Except a few moderately warm days about the middle and close of the month the daily mean temperatures were generally below normal over the greater part of the State. Cold winds and frosty nights were the prevailing features of the month. High winds prevailed on the 1st, 7th and 19th. The maximum temperature of the month occurred about the 18th, and the minimum from the 1st to the 9th, generally on the 1st. There was an average of 11 clear, 9 partly cloudy, and 10 cloudy days during the month. The average number of days with measurable amounts of precipitation was 3. The average depth of the snowfall in the valleys was 2.4 inches.

The severe frost on the 25th killed apricots in the southwestern part of the State.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.92 inches.

The highest pressure, 30.23 inches, was recorded at Carson City, on the 12th, and the lowest, 29.39 inches, at Modena, Utah, on the 21st.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the reports of thirty-six stations, was 45.8, or about normal.

By sections, the means were: Northern, 45.1; eastern, 41.9; central, 45.4; western, 48.6; southern, 47.8.

The highest monthly mean, 52.2, was recorded at Soda-ville, Esmeralda county, and Hot Springs, Churchill county.

The lowest monthly mean, 40.4, was recorded at Monitor Mill and Hamilton, White Pine county.

The highest temperature recorded during the month was 84, at Silver Peak, Esmeralda county, on the 18th.

The lowest temperature recorded during the month was 14, at Monitor Mill, White Pine county, on the 1st.

The absolute range of temperature for the State was 70.

The greatest local daily range of temperature at stations which are equipped with self-registering thermometers was

52, at Martin's Ranch, Douglas county, on the 1th, and the least, 5, at Silver Peak, Esmeralda county, on the 20th.

Precipitation—Inches and Hundredths.

The average precipitation for the State was 0.75 of an inch, or about 0.09 of an inch below normal, and 0.16 of an inch in excess of the average for the corresponding month of 1901.

By sections, the averages were as follows: Northern, 0.83 of an inch; eastern, 0.78 of an inch; western, 0.66 of an inch; central, 0.96 of an inch; southern, 0.54 of an inch.

The greatest monthly amount, 2.68 inches, was recorded at Lee, Elko county, and the least, a trace, at Golconda, Humboldt county; Martin's Ranch, Douglas county; Verdi, Washoe county, and Wabuska, Lyon county.

The greatest amount recorded in any twenty-four consecutive hours was 1.10 inches, at Eureka, Eureka county, on the 21st. The average depth of snowfall for the State, in the valleys, was 2.4 inches.

Relative Humidity.

Carson City—8 a. m., 38 per cent; 8 p. m., 43 per cent; monthly mean, 54 per cent.

Winnemucca—8 a. m., 38 per cent; 8 p. m., 38 per cent; monthly mean, 38 per cent.

Modena (Utah)—8 a. m., 50 per cent; 8 p. m., 17 per cent; monthly mean, 34 per cent.

Wind and Weather.

The prevailing direction of the wind was from the southwest. The total movement of the wind at Carson City was 6,770 miles; Winnemucca, 7,492 miles, and at Modena (Utah) 8,894 miles.

The maximum velocity at Carson City was 46 miles per hour, from the southwest, on the 19th; Winnemucca, 43 miles per hour, from the southwest, on the 7th, and 52 miles per hour, from the south, at Modena, on the 20th.

The average number of clear days was 11; partly cloudy, 9; cloudy, 10; days with .01 of an inch or more of precipitation, 3.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR APRIL DURING THE PAST FOURTEEN YEARS.

Year.	Temperature—			Average precipitation, inches and 100ths.
	Mean.	Highest.	Lowest.	
1889	53.5	100	16	0.45
1890	49.0	96	8	0.72
1891	48.3	88	5	1.51
1892	44.9	84	6	0.62
1893	41.8	78	0	1.14
1894	47.6	90	10	0.59
1895	48.2	95	1	0.42
1896	41.7	89	0	1.00
1897	47.3	91	9	0.37
1898	51.1	103	12	0.71
1899	47.9	87	12	0.37
1900	43.8	82	10	1.98
1901	45.3	98	2	0.59
1902	45.8	84	14	0.75

WEATHER AND CROPS.

With plenty of snow piled up in the mountains to supply

irrigation water during the summer months, and the soil in fine condition for plowing and seeding, the outlook at the beginning of the present crop season was very encouraging to stock, farming and mining interests.

Cold winds and frosty nights characterized the weather of the current month. The temperature and precipitation were both slightly deficient over the greater part of the State.

Vegetation made slow growth and was at least two weeks behind at the close of the month.

Spring seeding was practically finished in the south and west portions of the State early in the month, and well advanced in the east, northeast and central sections by the 15th.

The fruit trees were in bloom on the 20th. At the close of the month warmer weather prevailed and the growing crops made rapid growth. In the southeast portion alfalfa was two feet high and the grain crops well advanced.

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Pogonip—Elko, 6th.

Frost, Light—Belmont, 2d.

Frost, Killing—Elko, 23d, 26th; Lee, 2d, 6th, 27th, 28th; Carson City, 1st, 2d, 3d, 4th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 20th, 22d, 25th, 26th, 28th; Hawthorne, 22d, 25th; Winnemucca, 2d, 3d, 6th, 10th, 13th, 20th, 27th; Modena (Utah), 8th, 9th, 10th, 14th, 15th, 22d.

Halo, Solar—Hamilton, 6th, 8th, 10th; Carson City, 3d, 10th, 15th, 16th, 20th, 22d, 25th; Winnemucca, 20th; Modena (Utah), 10th, 23d, 25th.

Halo, Lunar—Carson City, 16th; Eureka, 15th; Candelaria, 14th, 15th.

Sleet—Belmont, 6th; Lee, 20th, 22d, 24th; Lewers' Ranch, 1st, 7th, 21st, 24th; Palmetto, 20th; Verdi, 30th.

Hail—Candelaria, 20th; Hamilton, 20th, 21st, 24th, 30th; Lee, 22d, 24th; Monitor Mill, 30th; Owyhee, 24th; Modena (Utah), 7th, 24th.

Thunderstorms or Thunder Heard—Eureka, 7th; Golconda, 22d; Palmetto, 20th; Silver Peak, 20th; Modena (Utah), 7th.

Haze, Dense—Modena (Utah), 26th.

High Winds—Candelaria, 1st, 7th, 26th; Golconda, 14th; Lewers' Ranch, 3d, 7th, 24th, 26th, 27th, 28th, 29th, 30th; Owyhee, 1st; Palmetto, 1st; Rioville, 25th; Sodaville, 7th, 8th, 9th; Tybo, 1st, 18th, 24th; Carson City, 1st, 19th, 30th; Winnemucca, 7th; Modena (Utah), 20th. Belmont, 1st, 24th.

NOTES.

Voluntary observation stations have recently been established at the following-named places:

Rioville, Lincoln county, in charge of Mr. Daniel Bonelli. Eureka, Eureka county, in charge of Mr. D. M. Broy.

Wabuska, Lyon county, in charge of Mr. J. E. Twaddle.

The Southern Pacific observation stations at Wadsworth, Lovelock, Humboldt, Battle Mountain, Palisade and Tecoma are now equipped with self-registering thermometers, thermometer shelters and standard rain gages.

Mr. Charles Fogg has succeeded Mr. Clay Peters as voluntary observer at Tonapah, Nevada. Mr. Fogg is an observer of considerable experience, having been in charge of the Silver Peak station for a number of years.

Mr. Henry J. Huff, voluntary observer at the Western Shoshone Indian Reservation at White Rock, Elko county, Nevada, has tendered his resignation on account of removal from the State. Mr. Huff was a very careful and conscientious observer, and his excellent reports will be missed from our monthly report. It is to be hoped that Mr. Huff's successor at the reservation will find it convenient to continue the observations at that place.

The voluntary stations at Hawthorne, Sodaville and Candelaria were inspected by the Section Director the latter part of the month. The instruments were found in good condition, properly exposed, and the observation work satisfactorily performed.

The report from Battle Mountain is missing this month.

THE HOTTEST SPOT ON EARTH.

Two hundred miles south of Death Valley, in almost a straight line, is the famous Colorado Desert, which, if possible, is even more horrible than Death Valley itself, although, of course, this includes but a small portion of the area of the State which, as a whole, is one of the most fertile in the Union. It covers 9,000 square miles, and in some parts its bottom is 230 feet below tidewater.

Reliable authorities assert that it is the most intensely hot spot on the face of the earth; the Sahara is nowhere compared with it. Its surface may fairly be said to be strewn with the bones of human beings who have lost their lives there. One might call this the ideal desert of the world; in no other of the earth's most fearful wastes can be found such natural conditions of horror. Even the mirage, tempter of the dying traveler's despair, teaches a more extraordinary development there than anywhere else. On any fine day—and in that region all days are fine, because there is no rain—one may behold in the Colorado Desert, where all is hopeless misery around, beautiful lakes, tempting verdure, and even towns within distances comparatively small.—*Saturday Evening Post*.

AVERAGE HOURLY WIND MOVEMENT FOR APRIL, 1902.

75th Meridian Time.

Station.	1 a.m.	2	3	4	5	6	7	8	9	10	11	12 noon	1 p.m.	2	3	4	5	6	7	8	9	10	11	12 midn't	For the month.
Carson City	7.9	7.0	6.7	7.8	7.6	7.2	6.8	6.2	5.4	5.1	5.8	7.3	8.9	10.0	11.5	12.9	14.2	14.9	14.3	13.6	12.8	12.3	10.3	9.1	9.4
Winnemucca	8.2	8.1	8.7	8.9	8.8	8.0	7.4	6.5	7.6	7.3	9.3	10.4	11.0	11.9	13.9	14.7	15.0	14.7	15.1	14.0	12.4	9.6	8.9	9.4	10.4
Modena (Utah)	9.4	8.5	9.1	9.5	8.6	8.6	8.6	8.1	8.7	8.7	8.9	12.1	14.8	15.2	17.4	18.5	18.2	18.9	18.6	18.7	16.9	11.7	9.8	9.4	12.4

PREVAILING HOURLY WIND DIRECTION FOR APRIL, 1902.

Station.	SW	SW	SW	NW	SW	SW	SW	S	S	SW	SW	SE-S	W	W	SW	W	SW	W	W	W	W	W	W	W	SW
Carson City	SW	SW	SW	NW	SW	SW	SW	S	S	SW	SW	SE-S	W	W	SW	W	SW	W	W	W	W	W	W	W	SW

CLIMATOLOGICAL DATA FOR APRIL, 1902.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).						Precipitation (inches).						Days.	Observer.				
				Mean.	Departure from the normal.	High-st.	Date.	Low-st.	Day.	Greatest daily range.	Total.	Departure from the normal.	Grates at 4 in. fall.	Total snowfall, in 4 in. fall.	Number rainy days.			Number clear days.	Number partly cloudy days.	Number stormy days.	Percentage of precipitation as w. s.
Northern Section.																					
Battle Mountain—1	Lander	4,511	32																	Agent So. Pacific Co.	
Beowawe	Eureka	4,695	32	50.6	+1.7	78	18	33	20	0.35	0.29	0.30	3.5	2					s	Agent So. Pacific Co.	
Carlin	Elko	1,897	32	13.8	-2.3	65	30	21	13	0.60	+0.03	0.10	2.0	2	27		3	sw		Agent So. Pacific Co.	
Crane's Ranch†	Elko	5,350	15							1.83	+0.66	0.75	0.0	5	20	1	6	w		W. T. Crane	
Elko—1	Elko	5,063	32	44.1	-1.3	68	28	20	3	1.45	+1.01	1.05	3.0	1	12	13	5	se		C. H. Sprinkle	
Penelon	Elko	6,128	15	43.2	-1.3	70	19	28	1	0.70	+0.11	0.60	0.0	2	18	1	11	sw		Agent So. Pacific Co.	
Golconda—2	Humboldt	4,392	24			72	13	20	1	T	-0.60	T	0.0	0	20	0	10	sw		Agent So. Pacific Co.	
Halleck	Elko	5,229	30	42.8	-3.6	77	18	23	3	1.00	+0.39	0.50	4.0	4	15	0	15	w		Agent So. Pacific Co.	
Humboldt—1	Humboldt	4,286	31	46.2	-4.1	74	17	22	24	0.65	-0.02	0.65	1.0	1	22		8	s		Agent So. Pacific Co.	
Lee	Elko		4							2.68	+1.37	1.00	6.0	8	14	7	9	sw		Miss Jennie Williams	
Lovelock—1	Humboldt	3,977	1																	W. C. Pitt	
Lovelock	Humboldt	3,977	11	45.0	-7.0	68	29	35	1						11		16	s		Agent So. Pacific Co.	
Mill City	Humboldt	4,225	14	48.4	-0.9		12	25	1	0.20	-0.34	0.20	2.0	1	23	0	7			Agent So. Pacific Co.	
eOwyhee—1	Elko	6,000	3	42.3		70	18	18	13	0.81		0.33	1.2	10	8	11	6	nw		Henry J. Huff	
Palisade	Eureka	4,821	21	40.8	-7.1	66	14	20	3	1.07	+0.39	0.30	6.0	5	6	5	19			Agent So. Pacific Co.	
Quinn River Ranch¶—1	Humboldt	4,850	1	45.6		68	19	20	10	0.21		0.08	0.0	4	7	14	9	w		F. M. Payne	
Tecoma—2	Elko	4,812	25				16	35	9	0.50	-0.12	0.50	T	1	9	0	21			Agent So. Pacific Co.	
Toano—2	Elko	5,975	33	48.2	+3.6	72	18	23	10	0.88	+0.09	0.29	T	4	13	10	7	sw		Agent So. Pacific Co.	
Wells	Elko	5,623	31	46.8	-4.7	66	16	30	2					1	12	1	17	w		Agent So. Pacific Co.	
Winnemucca—1	Humboldt	4,432	24	44.9	-2.3	73	18	17	3	0.31	-0.60	0.27	2.6	3	7	8	15	sw		U. S. Weather Bureau	
Wood—1	Elko	6,000	3	44.1		76	18	18	10	0.91		0.39	1.0	5	8	14	8			A. H. Wiseman	
Eastern Section.																					
Means				45.1	-2.7	78	18	17	3	0.83	+0.14	1.05	1.5	3	14	5	11	sw			
Ely—1	White Pine	6,000	15	45.0	+2.0	69	17	20	1	1.00	-0.17	0.30	2.5	7	10	10	10	nw		M. B. Garaghan	
Hamilton—1	White Pine	7,977	2	40.4		68	18	16	1	0.22		0.12	2.2	2	9	14	7	s		Mrs. J. F. Beck	
Monitor Mill||—1	White Pine	6,400	4	40.4		68	18	14	1	1.12		0.91	2.7	3	6	11	13	sw		Jas. B. Orr	
Central Section.																					
Means				41.9	+2.0	69	17	14	1	0.78		0.91	2.5	4	8	12	10				
Austin—1	Lander	6,594	14	42.2	-2.0	70	18	23	9	1.18	-0.10	0.50	0.0	5						G. M. Dyer	
Eureka—1	Eureka			44.0	-4.4	76	18	17	3	1.55	-0.59	1.10	14.0	4	7	11	12	s		D. M. Broy	
Potts—1	Nye	6,990	10	50.0	+3.9	76	29	24	29	0.15	-0.69	0.15	2.5	1	8	9	13	s		Miss Bessie Potts	
Western Section.																					
Means				45.4	-0.8	76	18	17	3	0.96	-0.46	1.10	5.5	3	7	10	13				
Carson City—1	Ormsby	4,660	23	45.9	-2.1	73	17	22	22	0.28	-0.59	0.15	T	4	13	15	2	sw		C. W. Friend	
Carson City (W. B.)—1	Ormsby	4,720	13	45.2	-2.8	69	17	23	22	0.18	-0.69	0.14	T	2	12	14	4	sw		U. S. Weather Bureau	
Hot Springs—2	Churchill	4,072	15	52.2	-1.0	78	8	30	1						11	19	0	nw		Agent So. Pacific Co.	
Lewers' Ranch†—1	Washoe	5,200	15	46.3	-0.6	72	17	24	9	1.58	+0.39	0.70	0.2	7	12	13	5	sw		E. R. Lewers	
Martin's Ranch‡—1	Douglas	4,830	4	52.1		79	17	17	9	T		T	0.0	0	19	6	5	sw		Mrs. J. H. Martin	
Reno—1	Washoe	4,484	32	45.8	-1.0	72	17	23	9	0.10	-0.31	0.06	T	4	8	9	13	sw		State University	
Verdi—2	Washoe	4,895	13			78	14	35	24	T	-0.65	T	0.0	0	19	0	11	sw		Agent So. Pacific Co.	
Wabuska—1				49.6		79	18	20	23	42	T		T	0.0	0	6	11	13	sw		J. E. Twaddle
Wadsworth—1	Washoe	4,077	31	51.6	-1.1	78	19	20	23	46	+0.32	0.35			3	23	0	7	w		Agent So. Pacific Co.
Southern Section.																					
Means				48.6	-1.4	79	14	17	9	0.66	-0.17	0.70	T	3	14	10	6	sw			
Belmont—1	Nye	8,132	11	40.1	-2.3	64	29	21	21	1.50	+0.70	0.80	6.0	2	5	9	7	sw		W. N. Granger	
Candelaria—1	Esmeralda	5,783	13	49.4	-0.2	79	18	23	2	0.36	-0.15	0.23	2.5	2	13	9	8	w		A. G. Draper	
Hawthorne—1	Esmeralda	4,569	15	50.4	-2.1	76	20	24	2	0.40	-0.02	0.22	0.0	1	17	3	10	s		T. G. Watterson	
Palmetto—1	Esmeralda	6,500	13	44.4	+0.9	75	17	15	9	1.15	+0.29	0.88	9.5	3	14	12	4	e		Wm. Oothout, Jr.	
Rioville	Lincoln																			Daniel Bonelli	
Silver Peak—1	Esmeralda	4,382	7	32.0		84	18	26	2	0.12		0.12	0.0	1	11	13	6	sw		H. Latter	
Sodaville—1	Esmeralda	4,665	4	52.2		83	19	29	3	0.91		0.03	0.0	1	21	8	1			Agent So. Pacific Co.	
Tybo—1	Nye	6,500	11	45.8	-0.6	74	16	20	2	0.45	+0.03	0.25	0.4	2	9	19	2	s		Jas. B. Gilmore	
Means				47.8	-0.9	84	18	15	9	0.54	+0.19	0.88	2.6	2	13	10	7	sw			
State Means				45.8	-1.5	84	18	14	1	0.75	-0.09	1.10	2.4	3	11	9	10	sw		State Means	
Miscellaneous.																					
Modena (Utah)	Iron	5,479		46.8		76	18	23	10	0.13		0.09	0.0	2	13	14	3	sw		U. S. Weather Bureau	

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; 2, observations at 7 a. m. and 2 p. m.; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates, T indicates trace of precipitation. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

* Not considered in computing State or District means.

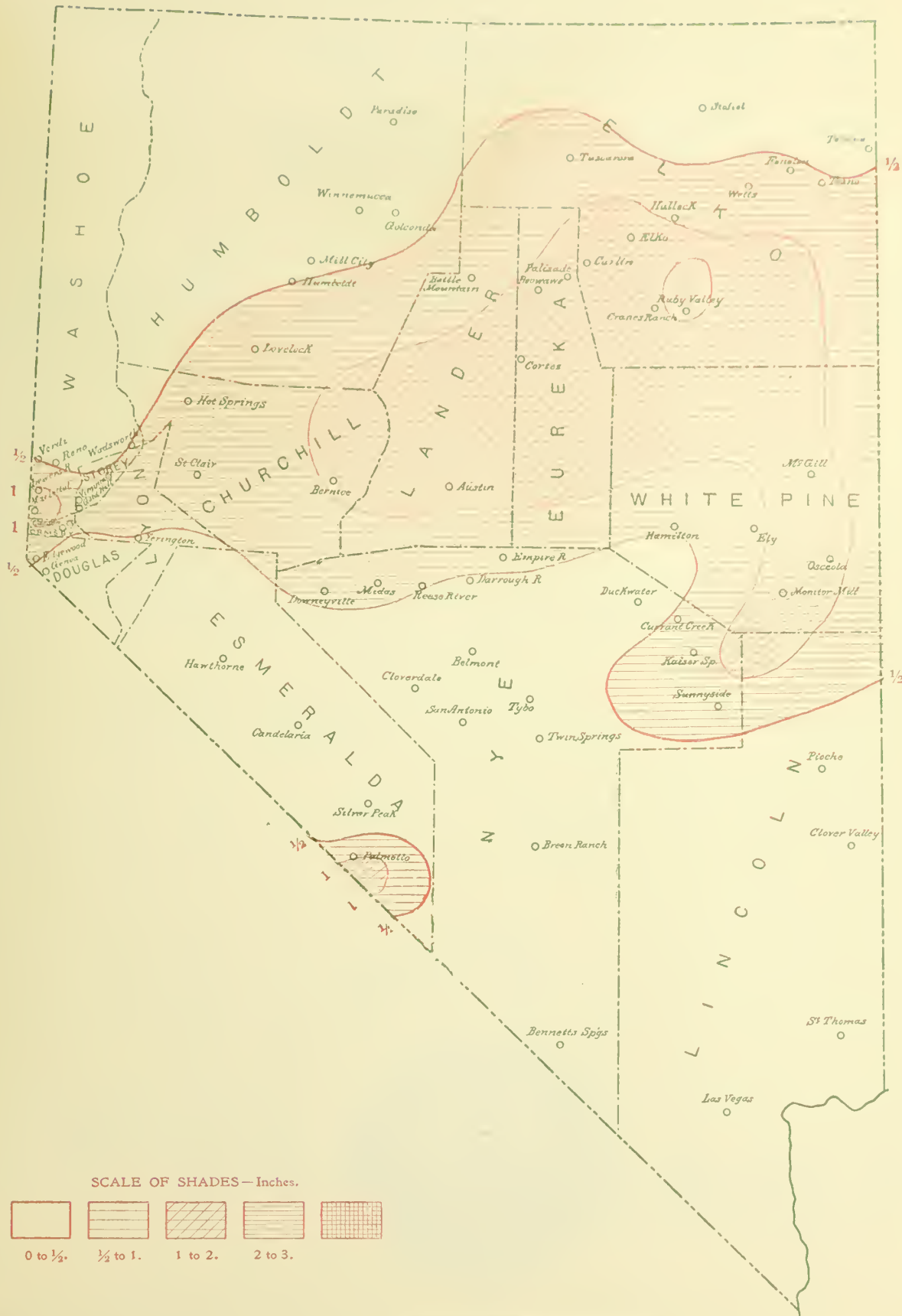
† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. || Postoffice—Ely. ¶ Postoffice—Amos.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR APRIL, 1902.

Stations.		Day of Month.																															Monthly means.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Austin	Max. 51	44	55	57	54	59	51	46	45	54	52	51	51	53	62	61	65	70	65	54	38	43	49	42	50	50	55	55	58	57	59	---	53.5
Battle Mountain	Min. 33	25	27	31	33	30	28	24	23	26	31	30	29	35	34	35	39	42	42	33	26	28	31	28	27	32	29	30	31	32	---	30.8	
Belmont	Max. 47	45	52	57	57	57	48	50	51	53	65	60	62	67	71	70	75	79	74	66	47	37	42	50	51	57	55	54	64	55	---	51.2	
Candelaria	Min. 31	25	30	35	29	35	28	24	23	30	35	35	34	40	40	40	42	47	48	34	28	21	21	26	29	30	28	32	32	33	---	29.0	
Carlin*	Max. 59	55	64	69	66	68	62	61	56	57	65	60	62	67	71	70	75	79	74	66	47	37	42	50	51	57	55	54	64	55	---	31.7	
Carlin*	Min. 36	23	28	36	41	35	28	31	23	28	35	35	34	40	40	40	42	47	48	34	28	21	21	26	29	30	28	32	32	41	---	56.1	
Carson City	Max. 52	52	53	53	52	54	53	54	53	54	55	55	50	50	52	53	54	55	55	40	34	37	51	50	51	57	58	58	65	55	---	59.3	
Carson City	Min. 35	30	30	35	34	35	42	29	35	23	40	35	21	44	30	38	40	40	40	40	34	37	51	50	51	57	58	58	65	55	---	32.4	
Carson City (W. B.)	Max. 56	56	58	66	57	60	54	53	57	60	54	56	64	64	69	64	70	73	70	58	53	50	51	50	51	57	58	58	65	55	---	56.7	
Carson City (W. B.)	Min. 28	26	30	27	37	32	37	35	30	24	32	30	32	30	32	34	34	34	34	34	30	24	37	51	45	49	52	54	55	60	54	---	33.3
Elko	Max. 54	51	56	62	58	54	51	56	55	54	56	57	61	63	65	62	65	69	68	57	51	45	49	38	36	25	35	37	36	45	43	---	59.2
Elko	Min. 31	26	33	32	33	33	35	33	30	28	34	30	31	33	33	34	36	36	36	42	34	33	38	58	52	58	61	68	67	62	---	59.2	
Ely	Max. 52	53	50	54	56	60	58	57	62	61	60	61	60	58	61	62	60	64	58	60	54	58	60	54	58	52	58	61	68	67	62	---	59.2
Ely	Min. 27	30	20	30	34	33	35	27	26	22	29	31	31	29	30	31	30	33	34	36	27	27	26	28	26	27	29	28	30	31	---	59.5	
Eureka	Max. 55	51	57	63	61	62	64	67	63	64	67	63	56	60	67	68	69	67	68	67	59	53	55	41	57	64	61	62	68	62	---	30.1	
Eureka	Min. 20	25	30	32	29	30	25	29	28	30	29	27	32	22	32	37	34	46	35	34	41	40	37	33	30	26	27	31	32	37	---	30.1	
Halleck*	Max. 51	47	55	60	55	59	60	50	48	50	52	57	55	54	56	65	67	70	76	70	65	40	44	51	49	55	62	60	63	65	---	57.5	
Halleck*	Min. 40	24	17	20	34	29	38	24	23	21	32	33	25	33	34	36	35	41	48	29	26	29	28	31	29	35	30	29	31	33	---	30.6	
Hamilton	Max. 41	48	55	58	60	58	50	48	48	55	58	57	56	58	58	62	65	68	77	68	41	43	62	60	36	55	57	58	56	60	45	---	55.1
Hamilton	Min. 31	32	28	32	36	35	39	35	30	28	38	37	29	38	32	37	38	45	48	38	33	33	32	32	33	37	36	36	40	40	---	34.9	
Humboldt	Max. 49	48	54	62	59	56	48	42	46	55	48	45	47	46	47	49	58	68	61	52	50	51	50	51	50	51	56	59	66	56	---	52.9	
Humboldt	Min. 16	18	16	19	23	26	30	24	23	23	30	27	26	24	30	30	33	34	41	40	37	33	30	26	22	26	27	31	32	---	27.9		
Hawthorne	Max. 52	58	63	65	57	58	63	60	62	62	65	68	70	64	67	70	74	73	64	60	50	54	50	47	52	57	60	63	67	59	---	31.4	
Hawthorne	Min. 24	28	30	34	43	45	40	38	27	28	30	32	33	30	32	33	39	40	42	38	34	24	22	22	23	23	23	23	43	28	---	31.4	
Lewers' Ranch	Max. 66	64	54	66	65	60	72	60	61	50	55	64	68	62	68	71	71	72	73	54	54	55	58	56	62	69	63	63	67	---	37.2		
Lewers' Ranch	Min. 45	24	32	33	41	32	42	30	31	30	32	40	38	37	33	40	45	46	48	37	35	27	39	38	29	35	39	37	47	49	---	59.5	
Lovelock*	Max. 56	50	56	64	56	62	57	56	60	56	60	64	67	69	65	63	72	71	68	51	50	53	55	51	62	58	58	57	58	54	---	33.1	
Lovelock*	Min. 34	28	36	30	40	45	35	35	33	24	29	32	30	32	34	36	36	41	41	26	32	34	33	35	35	35	35	38	42	38	---	37.2	
Martin's Ranch	Max. 47	52	45	52	48	53	55	58	57	56	58	59	57	58	59	57	59	60	58	57	59	60	61	52	51	53	62	63	68	60	---	38.6	
Martin's Ranch	Min. 35	37	38	37	40	45	42	40	39	40	48	40	39	40	41	40	42	42	40	38	34	40	34	40	34	40	33	32	33	34	42	---	65.0
Monitor Mill	Max. 59	61	65	73	61	63	66	61	65	57	66	70	75	68	70	75	78	78	60	56	54	63	50	55	68	66	60	72	59	---	29.2		
Monitor Mill	Min. 31	19	33	21	36	30	35	25	17	21	25	25	25	27	28	29	32	34	38	20	34	19	36	35	20	29	35	30	44	43	---	54.1	
Owyhee	Max. 50	54	57	59	56	50	56	56	47	47	50	51	52	51	50	65	64	66	70	65	50	42	45	49	46	49	46	49	46	49	---	26.8	
Owyhee	Min. 14	25	29	28	23	40	21	21	18	26	20	24	23	28	30	32	35	41	35	27	21	28	36	23	28	25	26	29	33	27	---	53.4	
Palmetto	Max. 55	51	55	59	50	56	56	47	42	50	51	52	51	50	65	64	66	70	65	50	42	45	49	46	49	46	49	46	49	46	---	31.2	
Palmetto	Min. 42	28	28	29	35	35	41	29	24	20	32	27	18	30	29	31	30	45	45	32	32	25	28	32	32	32	32	32	32	30	98	---	62.0
Palisade*	Max. 56	51	68	70	65	60	63	57	58	65	67	65	60	64	68	72	73	75	74	43	45	50	55	52	57	64	60	61	70	65	---	26.7	
Palisade*	Min. 31	15	23	24	31	23	21	17	13	17	23	36	21	25	31	30	35	32	34	35	28	17	20	26	33	21	27	22	25	39	---	56.7	
Pots	Max. 58	58	58	62	58	64	60	56	58	64	62	61	64	66	62	64	63	65	54	56	58	57	48	41	41	47	46	50	49	50	---	31.9	
Quinn River Ranch	Min. 30	30	30	30	34	35	34	25	25	25	35	30	30	34	37	33	34	40	31	30	35	30	31	28	30	32	35	37	39	---	59.4		
Quinn River Ranch	Max. 50	48	54	56	60	58	55	50	58	59	60	57	57	50	60	65	67	66	70	68	56	46	56	56	54	40	49	50	76	70	---	40.5	
Reno	Min. 36	30	40	44	39	40	35	31	30	38	40	43	41	40	50	53	50	49	54	39	35	35	32	39	40	49	50	76	70	---	60.0		
Reno	Max. 64	53	69	51	60	66	64	56	59	63	66	60	62	64	67	67	66	65	68	56	56	56	56	56	57	56	62	62	62	55	---	31.1	
Riverville	Min. 28	31	28	25	27	30	28	31	24	25	32	30	32	30	33	30	35	38	42	34	33	34	33	34	33	34	34	39	39	---	58.8		
Riverville	Max. 53	52	59	52	58	61	48	52	54	55	60	63	64	68	67	68	72	69	58	55	51	53	55	52	62	57	56	62	62	65	---	32.9	
Silver Peak	Min. 32	30	28	27	34	45	35	30	23	26	32	30	30	35	35</																		

*Extremes of temperature from readings of ordinary thermometer at 7 a. m., 2 p. m. and 9 p. m.

TOTAL PRECIPITATION FOR APRIL, 1900



Stations.	Day of Month.																															Total.		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Northern Section.																																		
Battle Mountain																				T	T	.05			.30								0.35	
Beowawe						.20														.36	.35	T		.75						.23		0.60		
Carlin						T	.14												T	.10	.20		T	1.05								1.83		
Crane's Ranch							.10												T													1.45		
Elko																																		
Fenelon																				.10	T			.60	T							0.70		
Golconda																				.50	T	.20	T	.20								T		
Halleck							.10																										1.00	
Humboldt																																	0.65	
Lee					.07		.30												.30	.25	.20	.05	T	.51						1.00		2.68		
Lorelock																																	0.09	
Mill City																																	0.20	
Owyhee		.16			.03		.01		.01					.03						.33	.07	.03			T	.20	.46				T			
Pallsade							1.10													.27	.20			.30						.20		2.07		
Quinn River Ranch							.06											T	.06					.08						.01		0.21		
Tecoma																																	0.50	
Toano							.29													T	.18				.27	.14							0.88	
Wells																																	0.00	
Winnemucca					T	T	T											.04					T		.27	.03					T		0.34	
Wood							.27						.13								.07				.39						.05		0.91	
Eastern Section.																																		
Ely	.05					.05	.30														.20		.15	.20						.05		1.00		
Hamilton		T					.10													.12	T		T		T					T		0.22		
Monitor Mill	.14						.91														.07											1.12		
Central Section.																																		
Austin							.16																										1.18	
Eureka							.15														.01	.50			.31					.20		1.55		
Potts																				.20	1.10	.15		.10								0.15		
Western Section.																																		
Carson City	T					T	.05	.15											.01	T				T	.07					T		0.28		
Hot Springs																																	0.00	
Lewers' Ranch	.02	.09			T	.15	.70											.35					T	T	T				T	.20	.07	1.58		
Martin's Ranch					T														T													T	0.10	
Reno						.02	.06													T			.01	.01										
Verdi						T																											T	T
Wabaska						T																			T								T	T
Wadsworth					.10		.22																	.35									0.67	
Southern Section.																																		
Belmont							.80													.70					T									0.34
Candelaria					T		.11													.23	T			T	T								0.22	
Hawthorne							.22																											1.15
Palmetto					T	T	.20												T	.88	.07		T	T										
Rioville																																		
Silver Peak																				.12													0.12	
Sodaville																					.03												0.03	
Tybo		T				T	.20											T			.25				T								0.45	
Miscellaneous.																																		
Modena (Utah)							.09													T	.04				T								0.13	

T Indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA :

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1902

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UNNE
U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR MAY, 1902.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

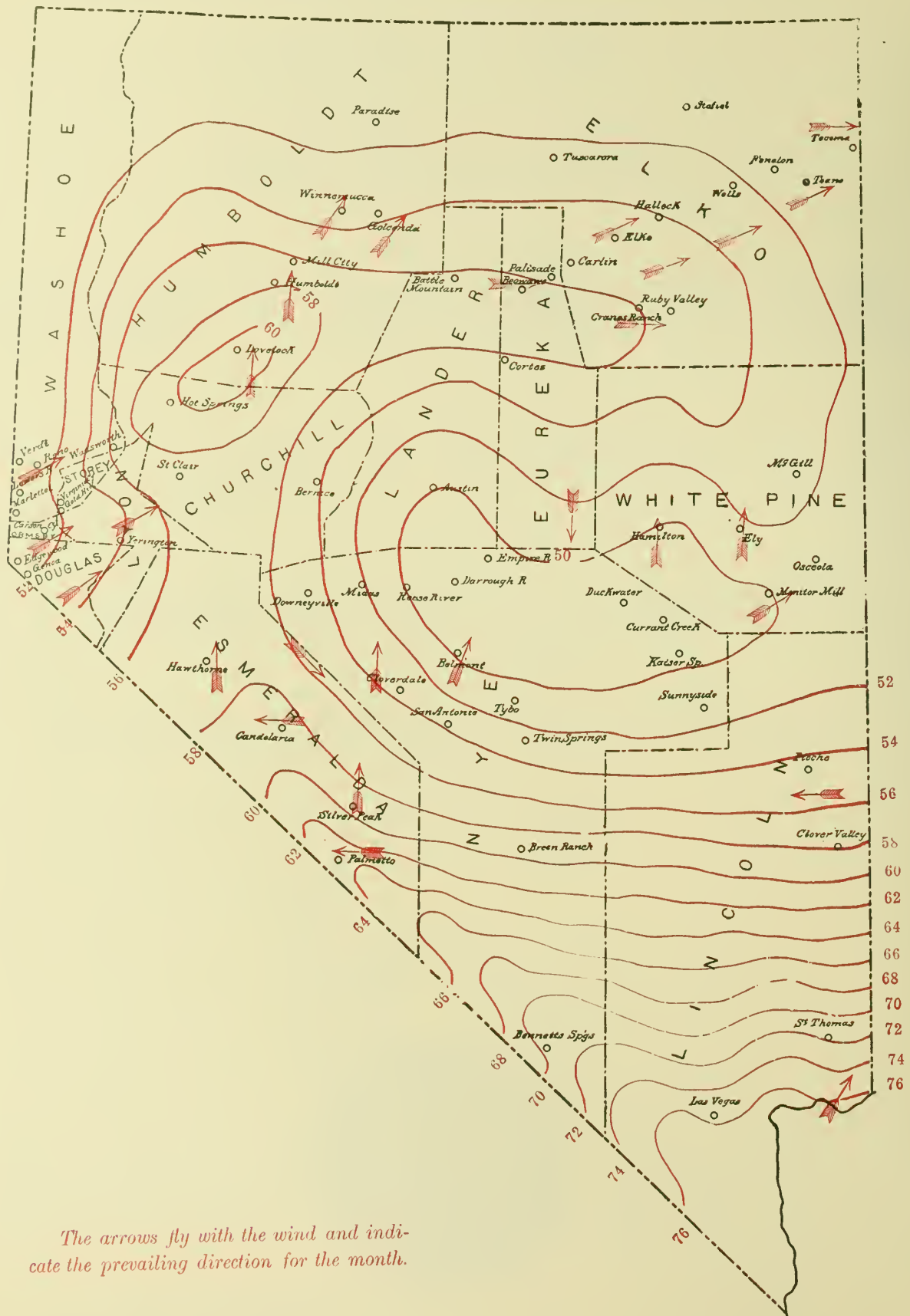
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR MAY, 1902



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL. XVI.

CARSON CITY, NEVADA.

No. 5.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.84 inches.

The highest pressure, 30.14 inches, was recorded at Winnemucca, on the 3d, and the lowest, 29.43 inches, at Modena, on the 19th. The absolute range of pressure for the State was 0.71 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the reports of thirty-two stations, was 53.7, or 1.0 below normal.

By sections, the means were: Northern, 55.4; eastern, 50.8; central, 51.5; western, 53.4; southern, 57.3.

The highest monthly mean, 75.6, was recorded at Rioville, Lincoln county.

The lowest monthly mean, 47.1, was recorded at Belmont, Nye county.

The highest temperature recorded during the month was 102, at Rioville, Lincoln county, on the 28th.

The lowest temperature recorded during the month was 16, at Monitor Mill, White Pine county, on the 2d.

The absolute range of temperature for the State was 86.

The greatest local daily range of temperature at stations which are equipped with self-registering thermometers was 59, at Battle Mountain, Lander county, on the 24th, and the least, 7, at Ely, White Pine county, on the 17th and 19th.

Precipitation—Inches and Hundredths.

The average precipitation for the State was 0.37 of an inch, or 0.86 of an inch below normal, and 0.49 of an inch less than the average for the corresponding month of 1901.

By sections, the averages were as follows: Northern, 0.26 of an inch; eastern, 0.31 of an inch; central, 0.66 of an inch; western, 0.35 of an inch; southern, 0.17 of an inch.

The greatest monthly amount, 1.46 inches, was recorded at Lee, Elko county, and the least, none, at several stations.

The greatest amount recorded in any twenty-four consecu-

tive hours was 1.00 inch, at Wadsworth, Washoe county, on the 14th.

Wind and Weather.

The prevailing direction of the wind was from the southwest.

The total movement of the wind at Carson City was 6,277 miles; Winnemucca, 7,340 miles, and at Modena (Utah), 8,567 miles.

The maximum velocity at Carson City was 36 miles per hour, from the southwest, on the 31st; Winnemucca, 42 miles per hour, from the south, on the 31st, and 56 miles per hour, from the south, at Modena (Utah), on the 31st.

Relative Humidity.

Carson City—8 a. m., 66 per cent; 8 p. m., 42 per cent; monthly mean, 54 per cent.

Winnemucca—8 a. m., 68 per cent; 8 p. m., 30 per cent; monthly mean, 49 per cent.

Modena (Utah)—8 a. m., 42 per cent; 8 p. m., 18 per cent; monthly mean, 30 per cent.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR MAY DURING THE PAST FOURTEEN YEARS.

Year.	Temperature			Average precipitation, Inches and hundredths.
	Mean.	Highest.	Lowest.	
1889	57.8	106	20	1.44
1890	59.9	105	23	1.05
1891	54.7	95	21	2.43
1892	53.8	100	13	1.17
1893	52.6	98	18	0.41
1894	56.3	95	25	0.80
1895	56.1	105	18	0.55
1896	48.2	108	5	2.03
1897	60.0	99	12	0.59
1898	51.8	93	20	1.84
1899	49.7	96	10	0.68
1900	56.6	101	20	0.77
1901	56.2	94	19	0.86
1902	53.7	102	16	0.37

CROP SUMMARY FOR MAY, 1902.

Week ending May 5th—The weather conditions of the week were generally unfavorable to farming interests. Cold nights and frosty mornings were of daily occurrence. Heavy destructive frosts occurred on the 2d, 3d and 4th, doing considerable damage to alfalfa, fruit and garden truck in various parts of the State. The seeding of wheat and oats is nearly finished and the planting of potatoes is well under way. There has been but little growth during the week on account of cold north winds and freezing night temperatures. In the extreme south portion the wheat is heading out and the cutting of the first crop of alfalfa is in progress. The outlook for fruit in this section of the State is promising. The range feed is getting good and live stock is reported in fair condition.

Week ending May 12th—Exceptionally fine growing weather

CLIMATOLOGICAL DATA FOR MAY, 1902.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (inches).					Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.			
Northern Section.																					
hBattle Mountain—1	Lander	4,511	32	59.8	—1.3	93	26	28	19	49	0.25	—0.65	0.14	0.0	2	10	12	1	—	Agent So. Pacific Co.	
Beowawe	Eureka	4,695	32	55.3	—3.6	85	25	36	18	—	0.80	+0.07	0.40	0.0	3	18	4	9	W	Agent So. Pacific Co.	
Carlin	Elko	4,897	32	—	—	—	—	—	—	—	0.20	—0.48	0.20	0.0	1	10	0	21	—	Agent So. Pacific Co.	
Crane's Ranch†	Elko	5,350	15	—	—	—	—	—	—	—	0.32	—1.40	0.15	0.0	3	18	6	7	W	W. T. Crane	
Elko—1	Elko	5,063	32	50.2	—5.0	84	28	27	3	45	—	—	—	—	—	13	10	8	NE	C. H. Sproule	
Penelon	Elko	6,128	15	54.0	—1.8	80	25	35	4	—	0.00	—1.02	0.00	0.0	0	19	1	11	W	Agent So. Pacific Co.	
Golconda—2	Humboldt	4,392	24	—	—	90	26	30	3	—	T	—1.10	T	0.0	0	24	0	7	SW	Agent So. Pacific Co.	
Halleck	Elko	5,229	30	53.4	—2.6	84	25	33	3	—	T	—0.98	T	0.0	0	20	0	11	—	Agent So. Pacific Co.	
Humboldt—1	Humboldt	4,236	31	57.7	—0.5	92	23	25	2	50	0.10	—0.60	0.10	0.0	1	20	4	7	S	Agent So. Pacific Co.	
Lee	Elko	—	4	—	—	—	—	—	—	—	1.46	—0.15	0.40	0.0	9	11	9	11	SW	Miss Jennie Williams	
Lovelock—1	Humboldt	3,977	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	W. C. Pitt	
Lovelock	Humboldt	3,977	11	62.0	—0.2	100	28	28	15	59	0.60	—0.47	0.00	0.0	0	6	0	18	S	Agent So. Pacific Co.	
Mill City	Humboldt	4,225	14	54.2	—3.0	85	27	32	18	—	0.15	—0.83	0.15	0.0	1	16	3	12	—	Agent So. Pacific Co.	
Owyhee—1	Elko	6,000	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Henry J. Huff	
Palisade	Eureka	4,821	21	54.0	—3.4	86	28	29	19	44	0.08	—0.59	0.03	0.0	4	18	0	13	—	Agent So. Pacific Co.	
Quinn River Ranch¶—1	Humboldt	4,850	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	F. M. Payne	
Tecoma—2	Elko	4,812	25	58.2	—0.9	91	29	29	18	49	0.17	—0.44	0.10	0.0	4	12	9	10	W	Agent So. Pacific Co.	
Toano—2	Elko	5,975	33	58.6	+4.2	83	27	32	19	—	0.06	—0.90	0.06	0.0	1	21	3	7	SW	Agent So. Pacific Co.	
Wells	Elko	5,623	31	54.2	—1.0	82	28	28	18	—	—	—	—	—	—	17	0	14	SW	Agent So. Pacific Co.	
Winnemucca—1	Humboldt	4,432	24	52.6	—1.4	84	26	18	3	44	0.21	—0.82	0.09	—	5	13	6	12	SW	U. S. Weather Bureau	
Wood—1	Elko	6,000	3	51.8	—	86	26	20	3	50	0.36	—	0.18	0.0	6	12	12	7	SW	A. H. Wiseman	
Eastern Section.		Means	—	55.4	—1.9	100	28	18	3	59	0.26	—0.69	0.40	0.0	3	16	4	11	SW	—	
Ely—1	White Pine	6,000	15	52.0	+1.3	85	28	21	4	46	0.39	—1.42	0.15	0.0	4	11	12	8	S	M. B. Garaghan	
Hamilton—1	White Pine	7,977	2	50.4	—	79	30	20	4	45	0.20	—	0.20	2.0	1	17	10	4	S	Mrs. J. F. Beck	
Monitor Mill¶—1	White Pine	6,400	4	50.0	—	80	28	16	2	50	0.35	—	0.14	0.2	4	10	12	9	SW	Jas. B. Orr	
Central Section.		Means	—	50.8	—	85	28	16	2	50	0.31	—	0.20	1.1	3	13	11	7	S	—	
Austin—1	Lander	6,594	14	50.4	—0.9	79	28	23	2	33	0.98	—0.70	0.38	0.0	7	—	—	—	—	G. M. Dyer	
Eureka—1	Eureka	—	—	52.6	—	83	30	22	3	39	0.90	—	0.50	6.0	3	12	10	9	N	D. M. Broy	
Potts—1	Nye	6,990	10	—	—	88	27	34	2	—	0.10	—1.62	0.05	1.5	4	9	8	14	S	Miss Bessie Potts	
Western Section.		Means	—	51.5	—	88	21	22	3	39	0.66	—1.16	0.50	3.8	5	11	9	11	S	—	
Carson City—1	Ormsby	4,660	23	51.8	—2.4	85	26	22	2	44	0.28	—0.33	0.19	0.7	6	17	10	4	SW	C. W. Friend	
Carson City (W. B.)—1	Ormsby	4,720	13	51.0	—3.2	81	26	24	2	37	0.20	—0.41	0.16	0.2	4	16	10	5	SW	U. S. Weather Bureau	
Hot Springs—2	Churchill	4,072	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Agent So. Pacific Co.	
Lewers' Ranch†—1	Washoe	5,200	15	52.2	—1.8	87	26	24	2	41	1.00	—0.80	0.34	0.5	6	16	13	2	SW	E. R. Lewers	
Martin's Ranch‡—1	Douglas	4,830	4	53.6	—0.6	86	27	21	2	51	0.00	—0.61	0.00	0.0	0	15	6	10	SW	Mrs. J. H. Martin	
Reno—1	Washoe	4,484	32	—	—	—	27	30	4	26	T	—0.53	T	0.0	0	18	3	10	SW	State University	
Verdi—2	Washoe	4,895	13	—	—	78	22	—	—	—	T	—1.32	T	0.0	0	13	9	9	—	Agent So. Pacific Co.	
Wabuska—1	—	—	—	54.5	—	88	27	23	2	47	T	—	T	0.0	0	14	8	9	SW	J. E. Twaddle	
Wadsworth—1	Washoe	4,077	31	57.5	—5.6	88	27	23	3	46	1.33	+0.90	1.00	0.0	2	23	0	8	NW	Agent So. Pacific Co.	
Southern Section.		Means	—	53.4	—2.7	88	27	21	2	51	0.35	+0.44	1.00	0.2	2	16	7	8	SW	—	
Belmont—1	Nye	8,132	11	47.1	—3.5	77	29	22	18	40	0.01	—1.05	0.01	0.1	1	20	5	6	SW	W. N. Granger	
Butler (Tonahap)	Nye	—	—	53.3	—	86	28	22	19	51	T	—	T	T	0	21	9	1	S	Chas. G. Fogg	
Candelaria—1	Esmeralda	5,783	13	57.4	+0.3	89	28	27	19	37	0.10	—0.60	0.10	T	1	13	13	5	E	A. G. Draper	
Hawthorne—1	Esmeralda	4,569	15	56.6	+1.6	85	28	31	18	35	0.00	—0.45	0.00	0.0	0	19	1	11	N	T. G. Watterson	
Palmetto—1	Esmeralda	6,500	13	50.4	—1.4	84	27	18	20	48	1.11	—0.28	0.55	1.0	5	14	12	5	E	Wm. Oothout, Jr.	
Rioville	Lincoln	—	—	75.6	—	102	28	50	6	46	T	—	T	0.0	0	—	—	—	SW	Daniel Bonelli	
Silver Peak—1	Esmeralda	4,382	7	58.2	—	90	28	36	19	38	T	—	T	0.0	0	11	11	9	S	H. Latter	
Sodaville—1	Esmeralda	4,665	4	60.0	—	94	29	30	19	43	0.15	—	0.09	0.0	2	24	4	3	NW	Agent So. Pacific Co.	
Tybo—1	Nye	6,500	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Jas. B. Gilmore	
Means		—	—	57.3	—0.7	102	28	18	20	51	0.17	—0.60	0.55	T	1	17	8	6	SW	—	
State Means		—	—	53.7	—1.0	102	28	16	2	59	0.37	—0.86	1.00	1.0	3	15	8	8	SW	State Means	
Miscellaneous.																					
Modena (Utah)	Iron	5,479	—	53.9	—	85	28	26	18	47	0.19	—	0.14	0.0	3	15	12	4	W	U. S. Weather Bureau	

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; 2, observations at 7 a. m. and 2 p. m.; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates, T indicates trace of precipitation. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

* Not considered in computing State or District means.

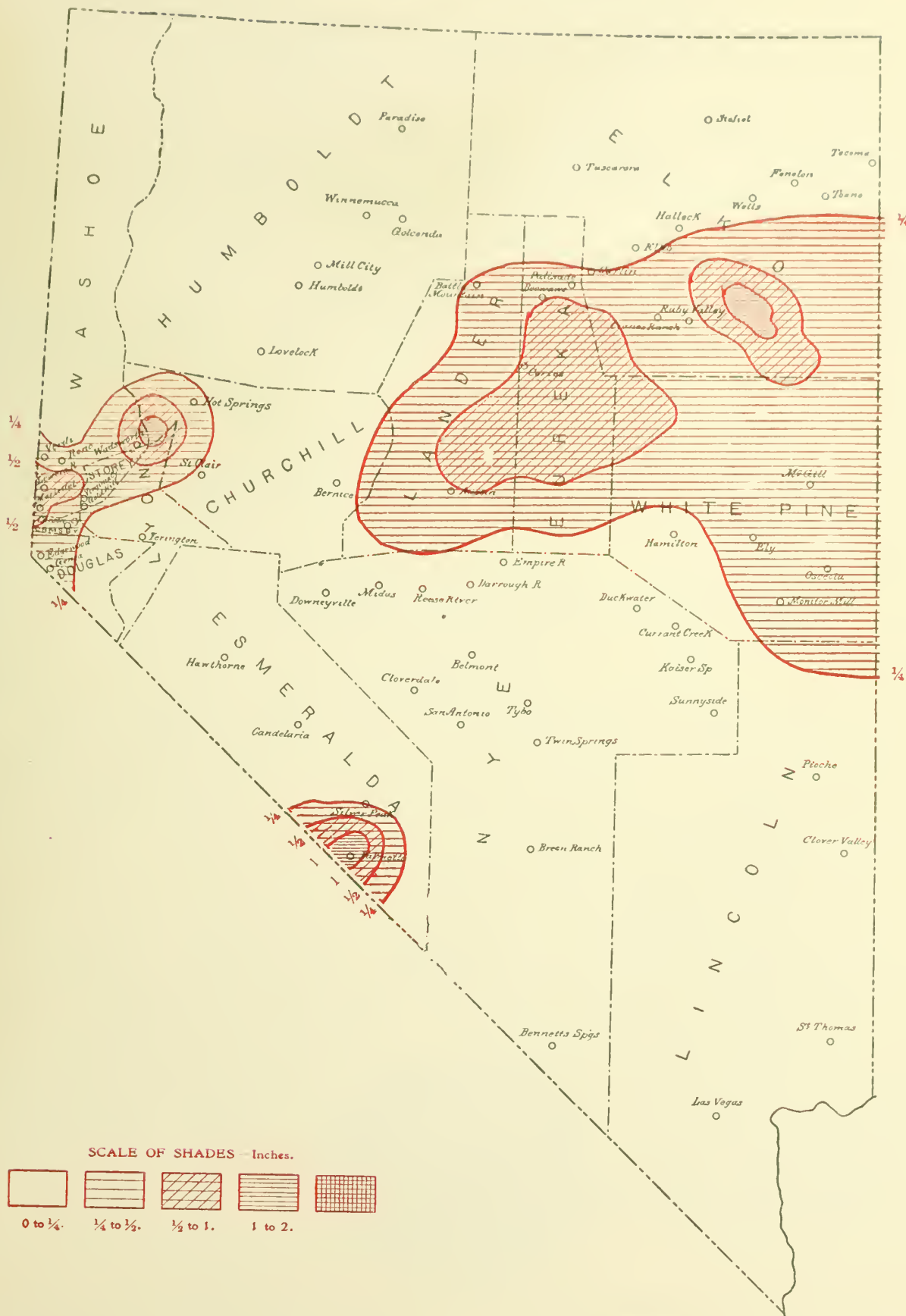
† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. ¶ Postoffice—Ely. ¶ Postoffice—Amos.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MAY, 1902.

Stations.	Day of Month.																															Monthly Means.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Anstun	Max. 55	48	51	57	63	65	67	65	71	68	66	68	70	67	63	65	64	46	45	46	52	59	59	66	71	73	75	79	75	72	69	63.2	
Battle Mountain	Min. 31	23	26	28	31	38	44	40	48	49	42	44	45	39	31	24	30	37	37	33	33	35	38	45	46	46	47	46	40	36	37.5		
Belmont	Max. 60	38	40	44	44	50	58	61	66	70	69	71	71	62	55	64	67	49	40	42	52	58	60	65	72	72	67	76	77	45	65	59.7	
Butler (Tonapah)	Min. 25	21	26	30	32	28	32	24	42	38	39	43	35	30	34	39	27	22	26	34	30	34	37	42	46	41	52	44	41	45	27	34.5	
Candelaria	Max. 50	28	35	30	34	34	41	41	42	42	45	48	45	48	54	54	51	30	28	28	31	32	33	40	40	56	41	52	48	30	31	39.2	
Carlin*	Min. 33	29	32	36	40	45	46	51	47	51	45	46	52	57	61	66	64	58	44	30	35	38	40	46	52	54	52	52	53	44	49	42.5	
Carson City	Max. 60	62	62	64	62	62	63	64	64	64	64	66	67	68	67	64	66	67	68	69	70	71	70	72	73	74	71	73	73	74	73	67.5	
Carson City (W. B.)	Min. 45	36	58	61	72	65	74	73	71	66	71	72	60	57	62	70	62	47	52	57	62	67	77	83	85	80	77	70	71	59	38	66.8	
Carson City (W. B.)	Max. 51	52	57	61	70	66	70	71	72	63	68	69	57	54	60	67	60	42	48	51	57	64	68	75	79	81	74	66	67	67	57	63.7	
Elko	Min. 43	24	32	31	35	50	39	38	39	52	38	38	43	33	34	33	41	32	28	26	40	34	36	40	42	48	54	46	41	42	37	38.4	
Ely	Max. 69	64	60	64	70	72	76	81	74	76	71	72	72	56	62	61	50	49	54	55	54	55	63	61	66	72	79	81	79	77	60	66.3	
Eureka	Min. 32	30	27	31	29	34	34	36	34	33	34	35	37	31	30	29	27	24	29	36	37	53	62	67	74	78	82	79	85	82	83	71	68.1
Halleck*	Max. 61	55	53	50	61	67	74	73	75	73	72	73	71	68	62	70	71	60	40	50	55	65	64	71	74	76	77	82	82	82	82	82	67.6
Hamilton	Min. 31	23	22	29	33	43	47	39	44	51	40	49	50	35	29	34	43	41	46	45	40	39	42	48	45	50	49	52	50	48	43	42.8	
Humboldt	Max. 40	48	55	56	60	77	78	74	73	75	76	73	78	63	62	68	43	45	46	45	40	39	42	48	45	50	49	52	50	48	43	42.8	
Hawthorne	Min. 30	25	33	31	35	46	51	48	43	43	40	42	42	40	43	44	45	50	46	40	40	40	40	48	76	75	82	86	90	87	85	72.6	
Lewers' Ranch	Max. 64	56	58	63	63	76	73	72	75	62	72	74	82	63	63	63	73	60	48	50	60	60	65	72	77	84	85	85	85	85	85	69.3	
Lovelock	Min. 37	33	38	36	47	49	45	46	45	46	45	45	51	43	38	43	34	32	27	28	30	32	38	30	32	34	35	38	40	43	40	33.1	
Martin's Ranch	Max. 65	66	70	70	70	77	78	80	70	70	70	80	63	61	70	72	62	63	65	63	70	78	92	70	76	75	82	86	90	87	85	83.8	
Monitor Mill	Min. 48	21	26	29	31	49	35	35	34	50	31	32	42	31	25	30	45	33	38	42	40	44	49	51	51	50	50	50	50	51	50	41.0	
Palmetto	Max. 24	16	29	26	27	20	35	35	42	36	38	37	40	35	32	33	30	31	29	30	32	37	38	68	70	73	78	80	78	75	68	67	67.0
Palisade	Min. 30	21	25	35	31	40	34	35	35	47	33	43	40	37	25	28	33	39	42	48	58	65	72	75	72	72	73	84	82	80	77	68	67.9
Portts	Max. 60	62	59	55	61	66	72	78	76	74	73	78	79	65	71	67	47	52	53	61	67	65	74	77	80	85	86	82	76	56	46	64.6	
Quinn River Ranch	Min. 35	30	40	43	47	45	48	46	46	46	44	44	43	41	31	30	42	32	29	39	38	29	38	36	36	48	41	42	41	40	38	39.4	
Reno	Max. 61	64	57	65	64	78	75	79	76	76	78	73	77	71	75	74	79	69	75	80	88	84	80	88	88	88	87	86	88	70	71	70	75.7
Rioville	Min. 33	35	34	30	36	37	37	40	38	35	33	34	34	40	41	40	42	31	33	32	35	37	41	43	43	40	38	34	32	26	31	36.3	
Silver Peak	Max. 100	90	92	87	91	95	98	100	89	94	93	91	85	91	92	94	89	85	70	80	86	85	89	96	97	92	101	102	96	96	91	91.6	
Sodaville	Min. 65	64	67	63	63	68	68	71	74	76	75	78	70	72	70	78	64	48	52	63	67	71	74	75	77	69	84	90	89	80	72	71.0	
Tybo	Max. 40	70	60	65	65	80	79	83	79	85	79	81	85	77	67	72	75	63	60	38	41	45	45	54	50	48	46	55	54	52	45	45.4	
Tecoma	Min. 37	60	61	61	61	70	71	70	73	74	50	44	50	42	40	42	42	37	30	35	43	44	50	47	50	55	49	58	51	51	41	44.8	
Wabaska	Max. 34	32	29	33	31	39	45	40	43	40	43	40	40	41	41	40	42	42	48	50	58	60	67	68	76	81	87	89	91	83	81	72.9	
Wadsworth	Min. 55	50	50	50	50	50	50	55	55	55	55	57	57	57	57	57	56	60	60	63	64	71	75	78	83	86	88	83	80	79	70	72.1	
Winnemucca	Max. 64	58	62	65	74	76	71	76	80	82	76	74	80	65	65	69	74	70	62	64	62	68	72	78	84	84	88	84	86	80	73.6		
Wood	Min. 35	28	23	35	33	52	45	44	44	54	40	42	42	40	35	38	40	43	49	38	38	36	46	48	46	48	54	53	43	42	40	44	41.4
Winnemucca	Max. 50	51	55	61	70	72	72	74	78	71	78	68	58	62	68	60	44	49	58	58	58	63	74	81	81	81	84	83	81	71	69	66.2	
Wood	Min. 37	23	18	30	31	42	49	46	37	53	46	34	47	36	38	31	31	36	37	31	36	37	45	37	45	51	49	42	51	41	41	39.1	
Modena (Utah)	Max. 58	51	56	54	69	76	80	75	81	73	78	56	66	55	72	56	47	50	51	58	67	65	72	83	85	81	85	83	85	81	78	75	68.0
Modena (Utah)	Min. 33	29	20	21	34	30	44	52	59	52	37	36	43	30	32	30	21	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35.5
Modena (Utah)	Max. 67	68	65	67	66	74	77	76	79	72	71	73	74	65	70	75	70	47	44	53	59	65	69	75	81	78	82	85	82	79	73	70.5	
Modena (Utah)	Min. 31	35	32	30	27	41	39	40	42	42	42	36	35	41	31	38	42	26	31	31	28	46	46	46	42	42	48	42	44	47	47	37.3	

*Extremes of temperature from readings of ordinary thermometer at 7 a. m., 2 p. m. and 9 p. m.

TOTAL PRECIPITATION FOR MAY, 1902



DAILY PRECIPITATION FOR MAY, 1902.

Stations.	Day of Month.																															Total.		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Northern Section.																																		
Battle Mountain														.11							.20		.14										.25	
Beowawe														.20								.20		.10									.80	
Carlin								.09						.15		T		T			T	.08					T						.20	
Crane's Ranch																																	.32	
Elko																																		
Fenelon							T																										0.00	
Golconda																																	T	
Halleck																T																	T	
Humboldt																							.10										0.10	
Lee							.07						.70	.01	.08	.03	.05	.02		T		T	.40										1.46	
Lovelock																																	0.00	
Mill City													.15										T										0.15	
Owyhee																																	0.08	
Palsade												.03	.02			.02							.01											
Quinn River Ranch																																		
Tecoma																						.10		.01									0.17	
Toano								.06									.01																0.06	
Wells																																		
Winnemucca							T						.09			T		T		T	.01	.01	.09										.21	
Wood				.06				.04					.05					.18		.02		.01		.01									.36	
Eastern Section.																																		
Ely														.15			.10	.13		.20												.39		
Hamilton																		T														.20		
Monitor Mill													.04			.11	.14																.01	
Central Section.																																		
Austin								.38						.16		.01	.13	.09	.11								.25						.98	
Eureka				.10									.30				.50						T										.90	
Potts							T						.02			.02							.01										.10	
Western Section.																																		
Carson City				.01	.03							.18	.01	T				T	.02														.28	
Hot Springs																																		
Lewers' Ranch				.25								.34	.10				.04	T															1.00	
Martin's Ranch																																	0.00	
Reno																		T															T	
Verdi							T																										T	
Wabaska												T																					T	
Wadsworth							.33							1.00																			1.33	
Southern Section.																																		
Belmont														T				T															0.01	
Butler (Tonapah)														T																			T	
Candelaria				T								.10					T			T			T										.10	
Hawthorne																																	0.00	
Palmetto							T					.20	.55					.10	T				T				.18	.08	T				1.11	
Rioville																																	T	
Silver Peak														T					T														T	
Sodaville													.09																					.06
Tybo							.15																											0.15
Miscellaneous.																																		
Modena (Utah)																		.04	.14	.01													.19	

T indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA :

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1902

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR JUNE, 1902.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU.

BY

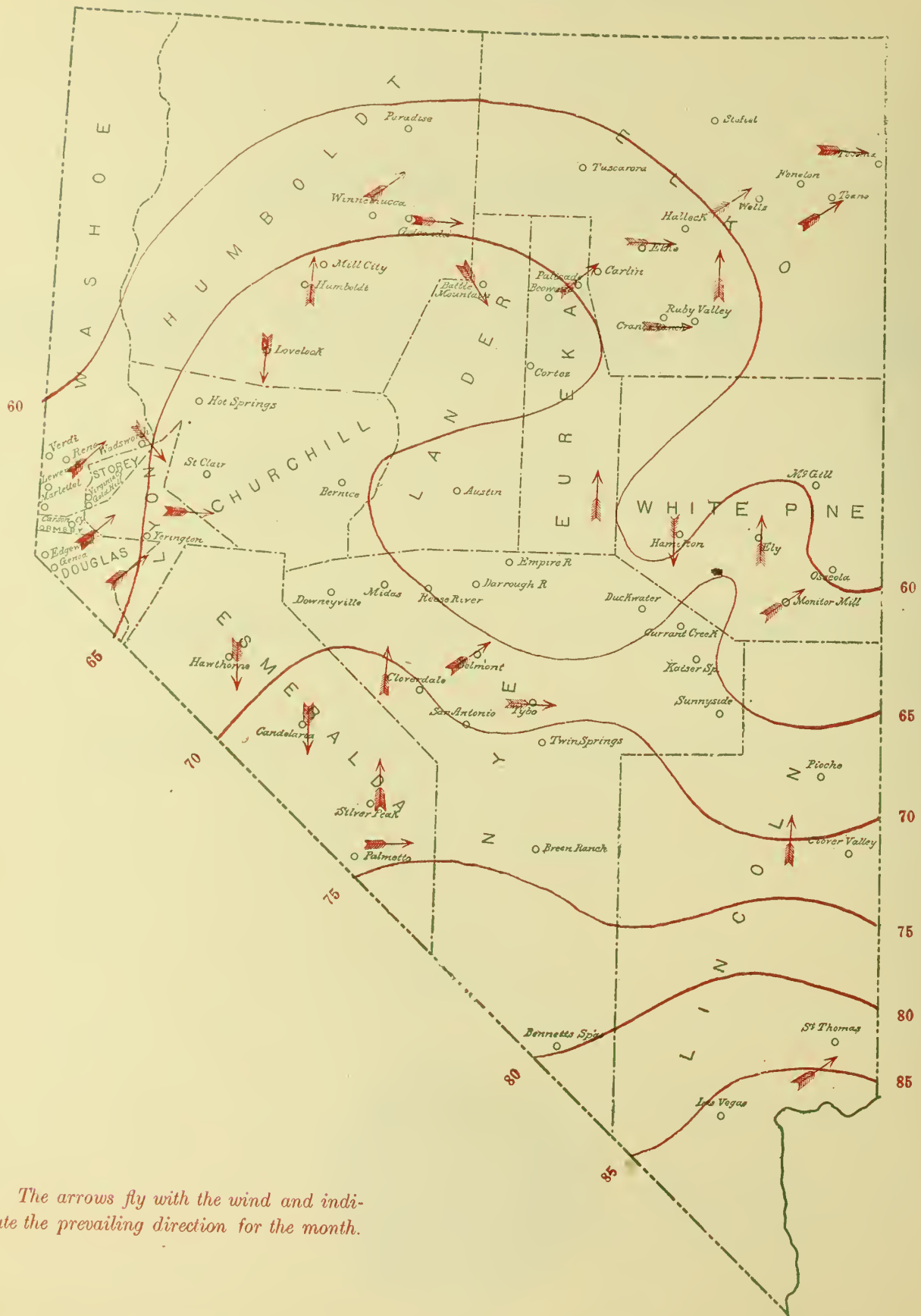
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR JUNE, 1902



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL. XVI.

CARSON CITY, NEVADA.

No. 6.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.81 inches.

The highest pressure, 30.13 inches, was recorded at Carson City and Winnemucca, on the 2d, and the lowest, 29.51 inches, at Winnemucca, on the 12th. The absolute range of pressure for the State was 0.62 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the reports of thirty-four stations, was 66.3, or 1.1 above normal.

By sections, the means were: Northern, 65.6; eastern, 60.0; central, 63.6; western, 64.5; southern, 71.3.

The highest monthly mean, 86.6, was recorded at Rioville, Lincoln county.

The lowest monthly mean, 54.9, was recorded at Hamilton, White Pine county.

The highest temperature recorded during the month was 116, at Rioville, Lincoln county, on the 24th.

The lowest temperature recorded during the month was 20, at Palmetto, Esmeralda county, on the 1st.

The absolute range of temperature for the State was 96.

The greatest local daily range of temperature at stations equipped with self-registering thermometers was 57, at Wabuska, Lyon county, on the 8th, 24th and 29th, and the least, 11, at Butler (Tonopah), Nye county, on the 2d.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from reports of all stations, was 0.04 of an inch, or about 0.36 of an inch below normal.

By sections, the averages were as follows: Northern, 0.04 of an inch; eastern, 0.12 of an inch; western, trace; central, 0.10 of an inch; southern, 0.01 of an inch.

The greatest monthly amount, 0.30 of an inch, was recorded at Eureka, Eureka county, and the least, none, at several stations.

The greatest amount recorded in any twenty-four consecutive hours was 0.30 of an inch, at Eureka, Eureka county, on the 1st.

Wind and Weather.

The prevailing direction of the wind was from the southwest.

The total movement of the wind at Carson City was 4,999 miles; Winnemucca, 6,329 miles, and at Modena (Utah), 8,654 miles.

The maximum velocity at Carson City was 27 miles per

hour, from the west, on the 23d; Winnemucca, 12 miles per hour, from the southwest, on the 23d, and 13 miles per hour, from the south, at Modena (Utah), on the 11th.

Relative Humidity.

Carson City—8 a. m., 57 per cent; 8 p. m., 26 per cent; monthly mean, 42 per cent.

Winnemucca—8 a. m., 56 per cent; 8 p. m., 21 per cent; monthly mean, 39 per cent.

Modena (Utah)—8 a. m., 25 per cent; 8 p. m., 10 per cent; monthly mean, 18 per cent.

OBSERVERS' REMARKS.

Wood (Elko County)—A very dry month, with warm winds nearly every afternoon. Stock looking well, but ranges not in best condition. Crops fair. A. H. WISEMAN.

Mill City (Humboldt County)—The weather during the month has been windy and disagreeable. W. R. RICH.

Lee (Elko County)—This has been a fine month for all growing crops, etc. MISS JENNIE WILLIAMS.

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Haze—Rioville, 6th.

Hail—Fenelon, 1st.

Corona—Candelaria, 13th.

Frost, Killing—Carson City, 2d; Lee, 16th; Palmetto, 1st, 2d.

Halos, Lunar—Carson City, 17th; Reno, 17th; Modena (Utah), 17th.

Halos, Solar—Carson City, 4th, 20th, 23d, 27th; Butler, (Tonopah), 27th; Wood, 27th, 28th; Modena (Utah), 2d, 7th.

High Winds—Candelaria, 2d; Wood, 1st; Tybo 1st; Elko, 8th, 9th; Belmont, 12th, 13th; Palmetto, 1st, 20th, 21st, 22d, 23d, 28th; Butler (Tonopah), 1st, 12th, 13th, 21st, 22d, 26th.

Thunderstorms—Candelaria, 12th; Monitor Mill, 11th, 12th; Palmetto, 11th, 12th; Tybo, 11th; Modena (Utah), 10th, 11th.

Thunder Heard—Silver Peak, 11th; Tecoma, 12th.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR JUNE DURING THE PAST FOURTEEN YEARS.

Year.	Temperature—			Average precipitation, inches and hundredths.
	Mean.	Highest.	Lowest.	
1889	70.0	110	30	0.22
1890	61.5	109	24	0.05
1891	59.8	97	8	1.18
1892	62.8	110	22	1.06
1893	63.8	100	18	0.04
1894	57.8	92	20	1.12
1895	62.9	109	14	0.13
1896	68.7	117	25	0.22
1897	62.8	112	20	0.37
1898	65.0	104	20	0.19
1899	63.7	103	21	0.60
1900	67.7	111	28	0.32
1901	59.1	99	21	0.15
1902	66.3	116	20	0.04

WEATHER AND CROPS.

Week ending June 2, 1902—Over the greater part of the State the weather conditions of the past week have been highly favorable, and crops of all kinds have made rapid and satisfactory growth. A heavy frost occurred in western districts on the morning of the 2d, but no damage of any consequence is reported. In the southeast portion drying winds have prevailed and crops have been unfavorably

Week ending June 23, 1902—Warm and clear weather prevailed over the State during the past week. All crops have been much improved by the warmth and sunshine of the past seven days. In Elko county potatoes and garden truck look well, though a little backward; wheat is beginning to head out; alfalfa is nearly ready for cutting; wild meadows are growing nicely; cattle are doing well; early vegetables are ready for use, and strawberries are commencing to ripen. In Humboldt county the progress of all crops has been satisfactory, and everything is reported to be growing nicely. A good crop of alfalfa is being harvested along the Humboldt river, and in other parts of the county. Wheat and barley

Week ending June 30, 1902—Nearly all reports for the past week are very favorable and indicate that the weather conditions have been all that could be desired for harvesting operations and the growth of crops. The streams have risen considerably during the week and water is now reported to be quite plentiful for irrigation and other purposes. The harvesting of alfalfa is progressing rapidly in most districts and the yield is pronounced quite heavy in many localities. In a few districts the first cutting is reported somewhat light and under the average yield. The grain crops are making rapid growth and looking very promising all over the State. As a rule the range feed is very good and cattle are doing well. The outlook for fruit, especially apples, is excellent.

The temperature observations made at Beowawe, Carlin and Toano during the current month are apparently incorrect and have not been used in computing district or State means.

Report for April, 1902, page 5: Martin's Ranch, mean temperature, 52.1, should read 47.1; Carson City (Friend), mean temperature, 45.9, should read 45.8.

[illegible]

CLIMATOLOGICAL DATA FOR JUNE, 1902.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (Inches).					Sky.			Prevailing direction.	Other, etc.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest daily range.	Total snowfall in inches.	Number rainy days.	Number clear days.	Number partly cloudy days.			
Northern Section.																				
Battle Mountain—1	Lander	4,511	32	68.4	+0.3	102	22	29	2	56	0.00	-0.51	0.00	0.0	0	19	7	4	SW	Agent So. Pacific Co.
Beowawe	Eureka	4,685	32								0.00	-0.41	0.00	0.0	0	30	0	0	S	Agent So. Pacific Co.
Carlin	Elko	4,897	32								0.00	-0.38	0.00	0.0	0	24	0	6	SW	Agent So. Pacific Co.
Crane's Ranch†	Elko	5,350	15								0.12	-0.02	0.12	0.0	1	29	0	1	W	W. L. Crane
Elko—1	Elko	5,063	32	61.0	-1.0	94	21	26	2	53	0.05	-0.40	0.05	0.5	1	24	6	0	NE	C. H. Sproule
Fenelon	Elko	6,128	15	63.9	-0.9	95	23	30	1					1	22	0	8	W	Agent So. Pacific Co.	
Goldendn—2	Humboldt	4,392	24	66.8	-3.1	97	9	43	1		T	-0.59	T	0.0	0	21	0	6	W	Agent So. Pacific Co.
Hallock	Elko	5,229	30	60.2	-4.8	96	21	33	1		0.00	-0.46	0.00	0.0	0	23	2	5		Agent So. Pacific Co.
Humboldt—1	Humboldt	4,236	31	68.2	+1.9	94	4	42	13	45	0.00	-0.35	0.00	0.0	0	26	0	4	S	Agent So. Pacific Co.
Lee	Elko		4								0.25	-0.17	0.25	0.0	1	18	11	1	S	Miss Jennie Williams
Lovelock	Humboldt	3,977	11	72.1	+2.1	98	8	34	2	55	0.00	T	0.00	0.0	0				N	Agent So. Pacific Co.
Mill City	Humboldt	4,225	14	72.6	+4.0	98	11	40	2		0.00	-0.12	0.00	0.0	0	24	2	4		Agent So. Pacific Co.
Owyhee—1	Elko	6,000	3																	
Palisade	Eureka	4,821	21	64.2	-1.9	97	22	29	2	51	0.18	-0.33	0.18	0.0	1	26	0	4		Agent So. Pacific Co.
Quinn River Ranch‡—1	Humboldt	4,850	1																	F. M. Payne
Tecoma—2	Elko	4,812	25	65.4	-2.2	101	22	28	2	52	T	-0.57	T	0.0	0	20	1	9	W	Agent So. Pacific Co.
Toano—2	Elko	5,975	33								0.00	-0.72	0.00	0.0	0	27	2	1	SW	Agent So. Pacific Co.
Wells	Elko	5,623	31	64.9	+0.4	91	21	42	3		0.00	-0.39	0.00	0.0	0	27	0	3	SW	Agent So. Pacific Co.
Winnemucca—1	Humboldt	4,432	24	64.0	+1.5	93	21	29	2	42	0.09	-0.61	0.09	0.0	1	15	7	8	SW	U. S. Weather Bureau
Wood—1	Elko	6,000	3	61.0		92	24	27	2	50	0.00		0.00	0.0	0	23	6	1		A. H. Wiseman
Means				65.6	-0.6	102	22	26	2	56	0.04	-0.38	0.25	T	0	24	2	4	SW	
Eastern Section.																				
Ely—1	White Pine	6,000	15	64.6	+5.4	95	23	27	1	50	0.03	-0.34	0.01	0.0	3	20	4	6	S	M. B. Garaghan
Hamilton—1	White Pine	7,977	2	54.9		80	12	25	21	44	0.25		0.25	2.5	1	19	8	3	N	Mrs. J. F. Beck
Monitor Mill—1	White Pine	6,400	4	60.6		90	23	29	1	49	0.07		0.04	0.0	3	17	5	8	SW	Jas. B. Orr
Means				60.0		95	23	25	21	50	0.12		0.25	0.8	2	19	6	5	SW	
Central Section.																				
Austin—1	Lander	6,594	14	62.9	+3.1	89	22	31	1	37	0.00	-0.78	0.00	0.0	0					G. M. Dyer
Eureka—1	Eureka			61.3		95	23	27	1	42	0.30		0.30	3.0	1	24	6	0	S	D. M. Broy
Potts—1	Nye	6,990	10								0.00	-0.10	0.00	0.0	0	19	6	5	N	Miss Bessie Potts
Means				63.6		95	23	27	1	42	0.10	-0.44	0.30	1.0	0	22	6	2	S	
Western Section.																				
Carson City—1	Ormsby	4,660	23	61.6	+0.4	92	20	29	2	47	T	-0.43	T	0.0	0	29	1	0	SW	C. W. Friend
Carson City (W. B.)—1	Ormsby	4,720	13	62.1	+0.9	90	20	30	2	41	T	-0.43	T	0.0	0	25	5	0	W	U. S. Weather Bureau
Hot Springs—2	Churchill	4,072	15																	Agent So. Pacific Co.
Lewers' Ranch‡—1	Washoe	5,200	15	62.3	+1.7	90	20	29	2	42	0.00	-0.45	0.00	0.0	0	27	3	0	SW	E. R. Lewers
Martin's Ranch—1	Douglas	4,830	4	64.2	+3.0	96	20	29	1	53	0.00	-0.43	0.00	0.0	0	30	0	0	SW	Mrs. J. H. Martin
cReno—1	Washoe	4,484	32	66.4	+2.0	91	8	31	4	48	0.00	-0.19	0.00	0.0	0	20	7	0	SW	State University
Verdi—2	Washoe	4,895	13																	Agent So. Pacific Co.
Wabaska—1				67.0		100	8	32	3	57	0.00		0.00	0.0	0	27	0	3	W	J. H. Harcourt
Wadsworth—1	Washoe	4,077	31	68.0	-5.0	96	9	34	2	45	0.00	-0.20	0.00	0.0	0	30	0	0	NW	Agent So. Pacific Co.
Means				64.5	+0.5	100	8	29	1	57	T	-0.36	T	0.0	0	27	3	0	SW	
Southern Section.																				
Belmont—1	Nye	8,132	11	64.5	+5.5	89	23	30	1	37	T	-0.52	T	0.0	0	26	3	1	SW	W. N. Granger
Butler (Tonopah)	Nye			68.2		93	23	30	1	51	0.00		0.00	0.0	0	28	2	0	S	Chas. G. Fogg
Candelaria—1	Esmeralda	5,783	13	71.2	+5.4	98	23	33	1	42	0.13	-0.03	0.13	0.0	1	25	5	0	N	A. G. Draper
Hawthorne—1	Esmeralda	4,569	15	69.4	+1.1	98	24	35	1	38	0.00	-0.29	0.00	0.0	0	24	3	3	N	T. G. Watterson
Palmetto—1	Esmeralda	6,500	13	63.1	+4.5	94	23	20	1	51	T	-0.49	T	0.0	0	27	3	0	W	Wm. Oothout, Jr.
Rioville	Lincoln			86.6		116	24	49	3	50	0.00		0.00	0.0	0					Daniel Bonelli
Silver Peak—1	Esmeralda	4,382	7	74.2		99	21	39	1	40	0.00		0.00	0.0	0	25	3	2	S	H. Latter
Sodaville—1	Esmeralda	4,665	4	74.7		104	23	37	1	43	0.00		0.00	0.0	0	30	0	0		Agent So. Pacific Co.
Tybo—1	Nye	6,500	11	69.0	+5.8	95	19	32	2	52	T	-0.06	T	0.0	0	19	11	0	W	Jas. B. Gilmore
Means				71.2	+4.5	116	24	20	1	52	0.01	-0.28	0.13	0.0	0	25	4	1	SW	
State Means				66.3	+1.1	116	24	20	1	57	0.04	-0.36	0.30	0.2	0	24	3	3	SW	State Means
Miscellaneous.																				
Modena (Utah)	Iron	5,479		67.6		95	24	31	2	47	0.02		0.02	0.0	1	27	0	3	SW	U. S. Weather Bureau

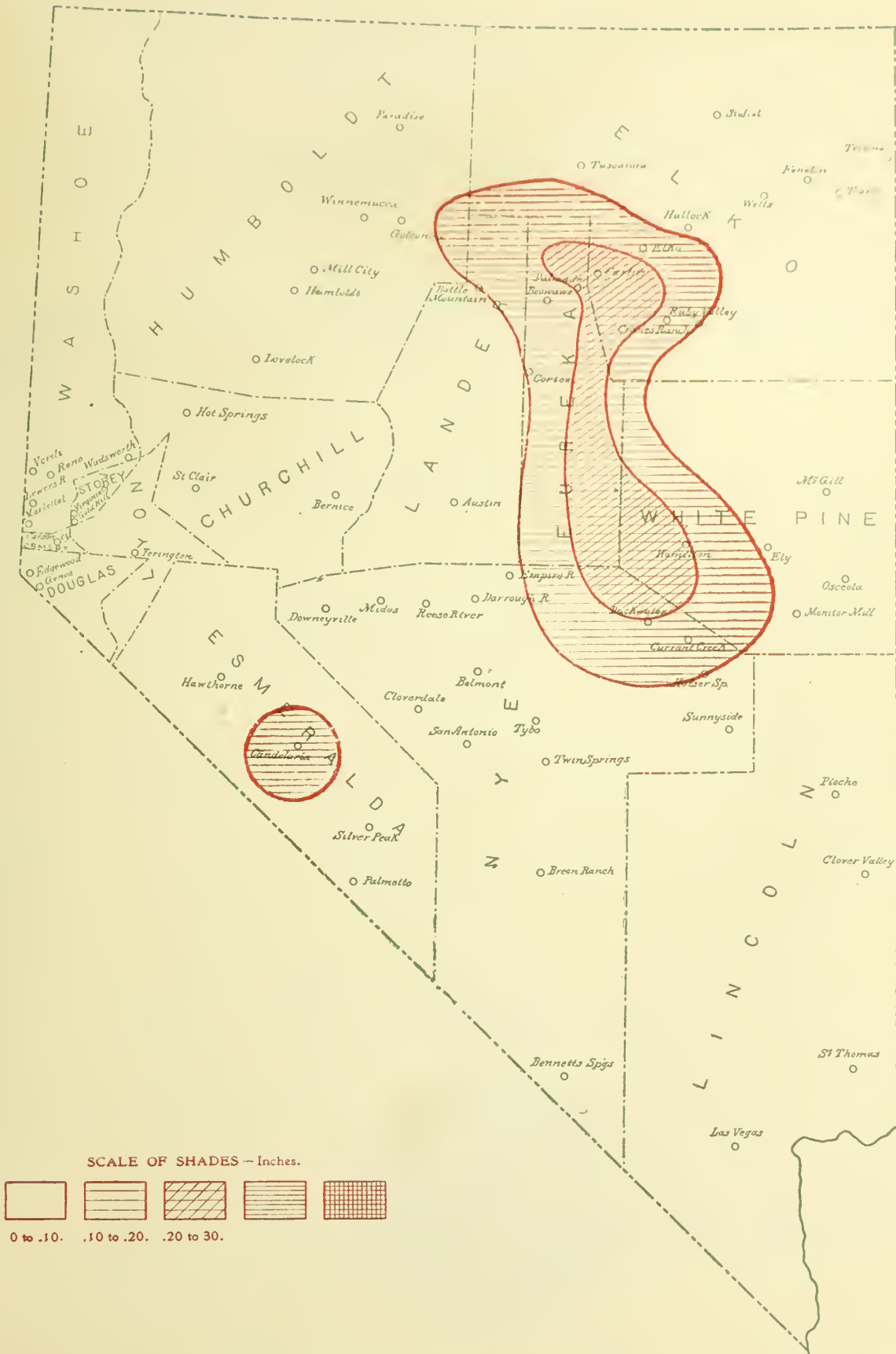
Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; 2, observations at 7 a. m. and 2 p. m.; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates. T indicates trace of precipitation. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

* Not considered in computing State or District means.

† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. || Postoffice—Ely. ¶ Postoffice—Amos.

*Extremes of temperature from readings of ordinary thermometer at 7 a. m., 2 p. m. and 9 p. m.

TOTAL PRECIPITATION FOR JUNE, 1902



DAILY PRECIPITATION FOR JUNE, 1902.

Stations.	Day of Month.																															Total.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Northern Section.</i>																																
Battle Mountain																																0.00
Beowawe																																0.00
Carlin																																0.00
Crane's Ranch	.12																															0.12
Elko	.05																															0.05
Fenelon																																0.00
Golconda	T																															T
Halleck																																0.00
Humboldt																																0.00
Lee	.25																															0.25
Lovelock																																0.00
Mill City																																0.00
Owyhee																																0.00
Palisade	.18																															0.18
Quinn River Ranch																																T
Tecoma											T																					T
Toano																																0.00
Wells													T																			0.00
Winnemucca	.09																															0.09
Wood																																0.00
<i>Eastern Section.</i>																																
Ely											.01	.01	.01																			0.03
Hamilton	.25										.01	.02	.04								T											0.25
For Mill																																0.07
<i>Western Section.</i>																																
Austin	.30																															0.30
Eureka																																0.00
Potts																																0.00
<i>Southern Section.</i>																																
Carson City	T																															T
Hot Springs																																0.00
Lewers' Ranch																																0.00
Martin's Ranch																																0.00
Reno																																0.00
Verdi																																0.00
Wabaska																																0.00
Wadsworth																																0.00
<i>Miscellaneous.</i>																																
Belmont											T																					T
Butler (Tonapah)										T		.13																				0.13
Candelaria																																0.00
Hawthorne											T	T																				T
Palmetto																																0.00
Rioville																																0.00
Silver Peak																																0.00
Sodaville																																0.00
Tybo											T																					T
Modena (Utah)										T	.02	T																				0.02

T indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA :
STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1902

U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR JULY, 1902.

NEVADA SECTION

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OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

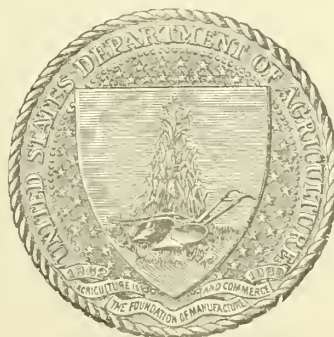
CHIEF OF WEATHER BUREAU,

BY

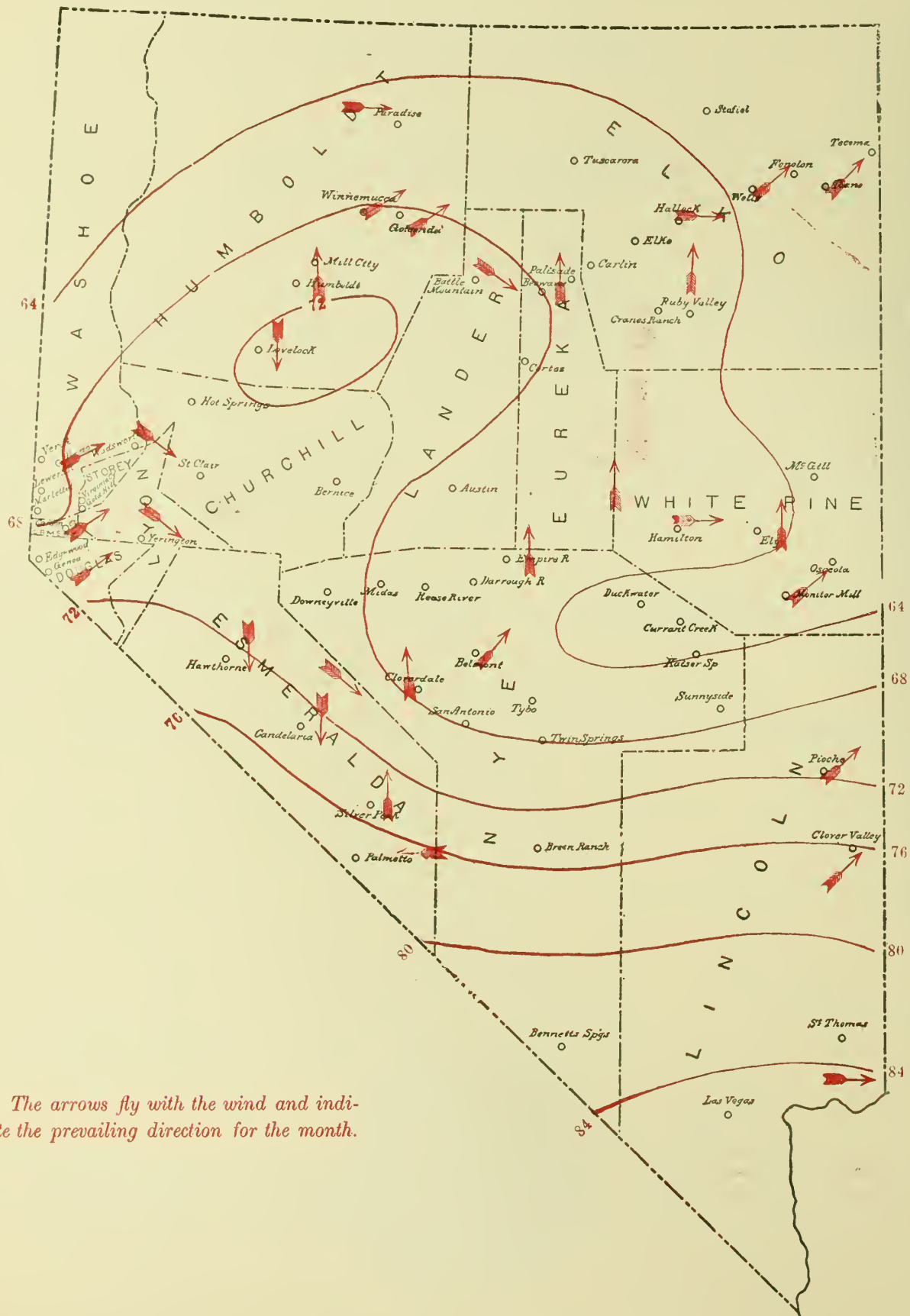
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR JULY, 1902



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL. XVI.

CARSON CITY, NEVADA.

No. 7.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.87 inches.

The highest pressure, 30.13 inches, was recorded at Winnemucca, on the 8th, and the lowest, 29.46 inches, at Modena, Utah, on the 2d. The absolute range of pressure for the State was 0.67 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the reports of thirty-two stations, was 67.9, or 4.5 below normal, and nearly 3 degrees lower than the mean for the corresponding month of 1901.

By sections, the means were: Northern, 67.6; eastern, 64.2; central, 66.4; western, 68.2; southern, 73.0.

The highest monthly mean, 84.4, was recorded at Rioville, Lincoln county.

The lowest monthly mean, 63.0, was recorded at Quinn River Ranch, Humboldt county.

The highest temperature recorded during the month was 116, at Rioville, Lincoln county, on the 22d.

The lowest temperature recorded during the month was 25, at Palmetto, Esmeralda county, on the 3d.

The absolute range of temperature for the State was 91.

The greatest local daily range of temperature at stations equipped with self-registering thermometers was 64, at Wabuska, Lyon county, on the 15th, and the least, 6, at Candelaria, Esmeralda county, on the 4th.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 0.44 of an inch, or about 0.32 of an inch above normal.

By sections, the averages were as follows: Northern, 0.40 of an inch; eastern, 0.32 of an inch; central, 0.49 of an inch; western, 0.12 of an inch; southern, 0.18 of an inch.

The greatest monthly amount, 2.00 inches, was recorded at Halleck, Elko county, and the least, none, at several stations.

The greatest amount recorded in any twenty-four consecutive hours was 1.18 inches, at Palmetto, Esmeralda county, on the 26th.

Wind and Weather

The prevailing direction of the wind was from the southwest.

The total movement of the wind at Carson City was 4,974 miles; Winnemucca, 8,692 miles, and at Modena (Utah), 5,974 miles.

The maximum velocity at Carson City was 39 miles per hour, from the southwest, on the 1st; Winnemucca, 58 miles per hour, from the south, on the 2d, and 36 miles per hour, from the southwest, at Modena (Utah), on the 14th.

Relative Humidity.

Carson City—8 a. m., 61 per cent; 8 p. m., 26 per cent; monthly mean, 44 per cent.

Winnemucca—8 a. m., 54 per cent; 8 p. m., 25 per cent; monthly mean, 40 per cent.

Modena (Utah)—8 a. m., 12 per cent; 8 p. m., 34 per cent; monthly mean, 23 per cent.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR JULY DURING THE PAST THIRTEEN YEARS.

Year.	Temperature			Average precipitation, Inches and 100ths.
	Mean.	Highest.	Lowest.	
1890	74.0	118	28	0.15
1891	70.4	102	26	0.53
1892	70.6	115	30	0.67
1893	70.3	110	24	0.40
1894	71.7	108	32	0.75
1895	62.9	109	14	0.13
1896	72.7	112	33	0.79
1897	69.4	116	25	0.28
1898	73.5	114	30	0.12
1899	72.6	106	34	0.14
1900	70.6	113	33	0.37
1901	70.8	109	31	0.31
1902	67.9	116	25	0.44

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Haze, Dense—Palmetto, 25th.*Halo, Solar*—Carson City, 13th.*Halo, Lunar*—Carson City, 13th.*Frost, Light*—Wood, 3d, 4th, 5th.*Frost, Heavy*—Carson City, 15th.*Frost, Killing*—Wood, 6th; Palmetto, 3d, 5th; Austin, 2d, 3d; Ely, 2d, 5th; Eureka, 2d, 3d; Lee, 3d; Potts, 4th, 5th.*Hail*—Palmetto, 26th; Lee, 24th; Crane's Ranch, 5th; Potts, 1st, 2d, 3d.*Thunderstorms*—Sodaville, 22d; Monitor Mill, 16th, 25th; Palmetto, 21st, 23d, 26th, 27th; Reno, 27th; Lee, 1st, 2d, 4th, 28th; Butler, 26th; Candelaria, 21st.*High Winds*—Palmetto, 1st, 2d, 3d, 15th; Reno, 1st, 4th, 28th, 29th; Butler (Tonopah), 1st, 2d, 3d, 4th, 15th, 16th.

OBSERVERS' REMARKS.

ELKO—Exceedingly hot and dry.

C. H. SPOULE.

WADSWORTH—Very cold on July 4th; fire in office all day.

G. A. MACPHERSON.

HUMBOLDT—Two inches of snow night of 1st.

J. J. CULLEN.

CLIMATOLOGICAL DATA FOR JULY, 1902.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (Inches).					Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	or at daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.			
Northern Section.																					
Battle Mountain—1	Lander	4,511	32	70.1	—7.0	104	25	37	5	56	0.80	+0.67	0.30	0.0	3	29	0	2	sw	Agent So. Pacific Co.	
Beowawe	Eureka	4,695	32	71.3	—6.7	102	30	40	2		0.80	+0.60	0.50	0.0	2	9	0	22	s	Agent So. Pacific Co.	
Carlin	Elko	4,897	32																	Agent So. Pacific Co.	
Crane's Ranch†	Elko	5,350	15								0.84	+0.53	0.35		4	24	4	3	w	W. T. Crane	
Elko—1	Elko	5,063	32	61.8	—8.3	99	22	34	6	56				0.0		21	19	0		C. H. Sprinkle	
Fenelon	Elko	6,128	15			98	24	37	3		0.30	+0.21	0.10	T	3	22	0	9	w	Agent So. Pacific Co.	
Golconda—2	Humboldt	4,392	24			98	10	48	2		T	—0.08	T	0.0	0	26	0	5	sw	Agent So. Pacific Co.	
Halleck	Elko	5,229	30	65.0	—7.9	98	25	36	2		2.00	+1.89	1.00	0.0	3	25	0	6		Agent So. Pacific Co.	
Humboldt—1	Humboldt	4,236	31	69.0	—5.0	95	20	33	2	41	1.02	+1.00	0.70	2.0	3	25	2	1	s	Agent So. Pacific Co.	
Lee	Elko		4								1.51	+1.00	0.60	1.0	3	20	6	5	s	Miss Jennie Williams	
Lovelock	Humboldt	3,977	11	75.4	—3.1	101	26	40	2	45	0.65	+0.63	0.50	0.0	2	25	0	6	n	Agent So. Pacific Co.	
Mill City	Humboldt	4,225	14	71.6	—4.0	100	21	38	2		0.10	+0.01	0.10	1.0	1	23	0	8		Agent So. Pacific Co.	
Owyhee—1	Elko	6,000	3																		
Palisade	Eureka	4,821	21	65.0	—9.5	98	25	35	3	52	0.96	+0.83	0.69	0.0	3	26	0	5		Agent So. Pacific Co.	
Quinn River Ranch*—1	Humboldt	1,850	1	63.0		100	23	30	3	53	0.55		0.21	0.0	3	23	4	4	w	P. M. Payne	
Tecoma—2	Elko	4,812	25	67.3	—10.7	100	25	31	6	52	0.09	—0.11	0.05	0.0	2	23	2	6		Agent So. Pacific Co.	
Toano—2	Elko	5,975	33			98	14	39	2		0.24	—0.01	0.14	0.0	2	21	4	6	sw	Agent So. Pacific Co.	
Wells	Elko	5,623	31	66.3	—6.7	90	13	38	2		0.76	+0.53	0.44	4.4	2	19	0	12	sw	Agent So. Pacific Co.	
Winnemucca—1	Humboldt	4,132	24	66.6	—4.9	97	20	33	2	45	0.88	+0.73	0.53	T	3	20	4	7	sw	U. S. Weather Bureau	
Wood—1	Elko	6,000	3	62.8		91	24	32	6	51	0.40		0.20	0.0	3	18	9	1		A. H. Wiseman	
Eastern Section.		Means		67.6	—6.1	104	25	30	3	56	0.70	+0.58	1.00	0.5	3	22	3	6	sw		
Ely—1	White Pine	6,000	15	66.0	—1.3	94	14	31	5	46	0.31	—0.26	0.12		4	16	10	5	s	M. B. Garaghan	
Hamilton—1	White Pine	7,977	2			97	24	26	2		0.40		0.40	4.0	1	15	14	2	w	Mrs. J. F. Beck	
Monitor Mill||—1	White Pine	6,100	4	62.4		92	24	27	2	48	0.26		0.12		3	19	5	7	sw	Jas. B. Orr	
Central Section.		Means		64.2		97	24	26	2	48	0.32		0.40		3	17	10	4	sw		
Austin—1	Lander	6,594	14	65.6	—3.3	88	14	31	2	43	0.48	—0.03	0.29	0.0	3					G. M. Dyer	
Eureka—1	Eureka			67.2	—7.7	95	23	32	2	48	0.50	+0.09	0.50	5.0	1	22	5	4	s	D. M. Broy	
Potts—1	Nye	6,990	10																	Miss Bessie Potts	
Western Section.		Means		66.4	—5.5	95	23	31	2	48	0.49	+0.03	0.50	2.5	2						
Carson City—1	Ormsby	4,660	23	65.0	—3.0	97	25	34	15	50	0.06	—0.11	0.05	T	2	20	9	2	w	C. W. Friend	
Carson City (W. B.)—1	Ormsby	4,720	13	65.6	—2.4	96	24	36	2	44	0.02	—0.15	0.02	T	1	20	9	2	w	U. S. Weather Bureau	
Hot Springs—2	Churchill	4,072	15																	Agent So. Pacific Co.	
Lewers' Ranch†—1	Washoe	5,200	15	65.8	—3.0	95	24	35	2	41	0.20	—0.00	0.15	T	2	23	7	1	sw	E. R. Lewers	
Martin's Ranch‡—1	Douglas	4,830	4	72.7		103	25	35	15	58	T		T	0.0	0	27	0	4	sw	Mrs. J. H. Martin	
Reno—1	Washoe	4,484	32	67.2	—5.9	96	25	35	2	44	0.25	+0.17	0.20	0.0	3	17	11	3	sw	State University	
Verdi—2	Washoe	4,895	13																	Agent So. Pacific Co.	
Wabuska—1				70.8		100	13	33	15	64	T		T	0.0	0	21	9	1	nw	J. H. Harcourt	
Wadsworth—1	Washoe	4,077	31	70.0	—8.4	98	25	34	2	48	0.30	+0.08	0.30	0.0	1					Agent So. Pacific Co.	
Southern Section.		Means		68.2	—4.5	103	25	33	15	64	0.12	—0.00	0.30	T	1	21	8	2	sw		
Belmont—1	Nye	8,132	11	66.4	—2.2	94	25	35	4	38	T	—0.53	T	0.0	0	22	8	1	sw	W. N. Granger	
Butler (Tonopah)	Nye			68.5		96	24	41	2	43						21	6	4	s	Chas. G. Fogg	
Candelaria—1	Esmeralda	5,783	13	75.0	—0.6	99	14	39	3	43	T	—0.36	T	0.0	0	15	14	2	n	A. G. Draper	
Hawthorne—1	Esmeralda	4,569	15	72.6	—2.0	98	15	45	3	45	0.00	—0.27	0.00	0.0	0	27	0	4	n	T. G. Watterson	
Palmetto—1	Esmeralda	6,500	13	64.4	—2.4	96	24	25	3	51	1.18	+0.03	1.18	0.0	1	20	8	3	e	Wm. Oothout, Jr.	
Rioville	Lincoln			84.4		116	22	49	3	52	T		T	0.0	0					Daniel Bonelli	
Silver Peak—1	Esmeralda	4,382	7	75.4		101	24	44	3	43	T		T	0.0	0	20	6	5	s	H. Latter	
Sodaville—1	Esmeralda	4,665	4	77.6		103	20	41	2	47	0.05		0.05	0.0	1	27	3	1	nw	Agent So. Pacific Co.	
Tybo—1	Nye	6,500	11																	Jas. B. Gilmore	
		Means		73.0	—1.8	116	22	25	3	52	0.18	—0.28	1.18	0.0	0	22	6	3	s		
State Means				67.9	—4.5	116	22	25	3	64	0.44	+0.32	1.18	0.5	2	21	5	5	sw	State Means	
Miscellaneous.																					
Modena (Utah)	Iron	5,479		68.4		93	24	31	3	46	T		T	0.0	0	20	9	2	sw	U. S. Weather Bureau	

Letters of alphabet indicate number of days record missing, as "a" one day, "c" three days, etc. Hours of observation: 1, observations from standard maximum and minimum thermometers; 2, observations at 7 a. m. and 2 p. m.; absence of reference marks indicates hours are 7 a. m., 2 p. m. and 9 p. m. *Italic figures* indicate temperature occurred on several dates, T indicates trace of precipitation. All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

* Not considered in computing State or District means.

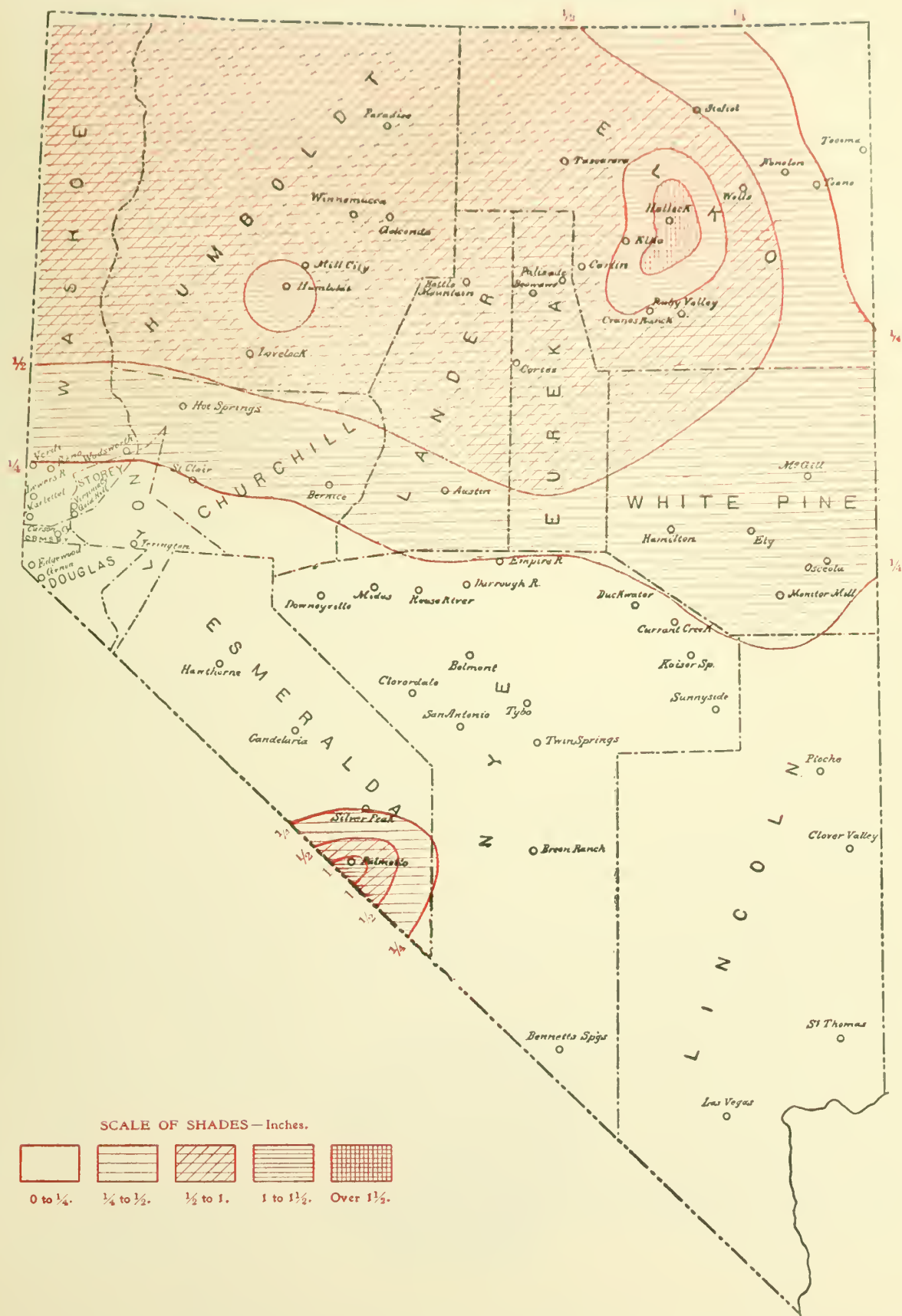
† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. || Postoffice—Ely. ¶ Postoffice—Amos.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JULY, 1902.

Stations.	Day of Month.																															Monthly Means.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Austin	Max. 79	Min. 52	51	32	39	54	62	72	72	74	79	82	82	85	88	84	81	77	77	84	88	86	87	88	88	87	87	85	82	85	86	79.9	
Battle Mountain	Max. 96	Min. 61	57	73	80	85	84	85	84	83	84	98	99	99	97	95	92	87	96	101	102	100	103	101	100	102	100	95	98	97	92.4		
Belmont	Max. 40	Min. 43	41	39	37	40	42	43	43	43	43	52	53	50	49	46	46	48	45	46	46	52	54	55	54	55	58	62	53	55	48.9		
Butler (Tonopah)	Max. 76	Min. 51	58	63	68	74	43	43	43	43	43	52	52	54	53	51	52	50	48	52	61	58	59	58	58	58	58	54	54	55	55	51.6	
Butler (Tonopah)	Max. 46	Min. 36	35	38	44	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43.2	
Candelaria	Max. 88	Min. 65	68	74	80	87	87	85	88	92	93	95	95	95	95	95	90	90	90	95	97	96	97	91	99	99	97	91	92	93	95	90.6	
Carlin*	Max. 59	Min. 39	62	44	47	51	54	57	58	60	60	61	60	60	60	60	59	61	60	61	62	64	63	68	67	69	66	63	65	62	63	59.5	
Carson City	Max. 77	Min. 62	68	72	78	79	81	87	88	87	87	86	86	84	84	84	81	85	88	92	93	91	93	94	95	97	94	92	87	81	87	86	84.5
Carson City (W. B.)	Max. 48	Min. 37	42	40	39	35	42	43	41	50	41	45	42	41	41	41	39	39	41	43	49	51	51	54	51	50	50	55	59	57	49	51	45.5
Elko	Max. 50	Min. 36	44	44	44	41	40	45	46	46	46	48	48	45	45	45	42	44	44	48	53	55	54	56	54	54	54	60	60	52	56	49.0	
Ely	Max. 86	Min. 54	61	63	73	74	78	79	86	90	92	91	90	91	90	86	84	83	91	98	94	99	97	94	95	97	97	93	89	91	93	86.7	
Eureka	Max. 40	Min. 38	36	37	40	34	36	37	39	37	46	47	48	48	43	40	41	38	42	44	46	47	49	47	46	44	43	48	48	45	44	42.9	
Halleck*	Max. 84	Min. 65	60	59	68	76	82	78	88	90	89	87	91	94	93	92	89	80	85	93	90	91	95	94	93	94	94	92	86	90	92	94	85.1
Hamilton	Max. 53	Min. 32	38	33	31	37	40	39	45	44	46	50	49	53	55	46	40	41	45	51	50	50	50	48	50	54	50	53	50	56	55	54	46.6
Humboldt	Max. 81	Min. 56	57	65	71	72	80	75	81	87	88	90	91	94	93	92	89	80	85	93	90	91	95	94	93	94	94	92	86	90	92	94	85.1
Hawthorne	Max. 53	Min. 32	33	35	34	37	44	39	40	56	51	54	52	53	52	47	44	42	40	49	59	61	60	54	53	56	53	56	55	60	55	56	49.2
Lewers' Ranch	Max. 36	Min. 34	36	42	48	46	48	50	55	57	62	58	58	57	56	50	50	48	52	53	58	62	62	58	58	60	50	55	58	65	60	62	53.9
Lovelock	Max. 30	Min. 26	30	35	40	43	47	50	49	52	55	56	58	81	80	82	85	87	90	98	95	96	95	96	97	95	96	94	95	93	95	83.8	
Martin's Ranch	Max. 54	Min. 33	40	42	40	41	45	50	59	57	58	57	58	52	49	49	50	54	53	50	62	59	59	59	53	55	55	62	66	61	61	88	84.4
Monitor Mill	Max. 70	Min. 68	75	78	80	81	88	90	88	91	92	95	95	95	95	95	95	95	95	95	98	99	91	91	98	98	98	95	94	96	89	95	87.5
Palmetto	Max. 46	Min. 27	30	33	29	33	30	36	42	48	40	48	51	51	43	43	35	36	44	49	45	44	46	46	49	54	52	51	49	52	55	43.5	
Palisade	Max. 78	Min. 65	71	68	73	80	82	84	86	86	85	88	89	90	89	87	88	88	89	90	90	88	90	93	93	90	78	83	83	85	85	85	84.2
Porto	Max. 47	Min. 25	32	30	27	40	42	45	46	47	42	45	46	45	44	44	44	42	42	45	46	48	48	47	52	51	55	51	49	50	52	49	44.5
Quinn River Ranch	Max. 61	Min. 49	45	47	65	71	78	75	86	92	90	92	91	92	87	81	83	81	87	86	92	92	94	100	90	100	97	95	97	92	94	94	83.5
Reno	Max. 39	Min. 35	30	36	40	43	49	44	47	42	41	45	44	40	40	47	43	45	47	41	40	44	44	47	45	49	42	47	44	48	41	44	42.6
Rioville	Max. 77	Min. 59	62	68	72	77	76	80	88	93	92	87	88	85	86	85	83	83	83	92	91	93	93	93	93	93	92	88	84	88	88	84.7	
Silver Peak	Max. 51	Min. 35	47	47	47	40	42	44	45	46	46	52	48	49	47	48	42	43	47	48	51	54	54	55	58	56	57	56	59	58	53	52	49.7
Sodaville	Max. 100	Min. 64	94	94	98	95	102	106	103	106	106	108	108	110	112	105	108	111	112	111	116	110	114	104	104	108	110	104	106	110	110	106.2	
Tybo	Max. 65	Min. 64	49	54	56	54	58	60	65	61	53	60	60	60	63	70	70	60	61	60	60	71	72	71	71	71	65	62	65	65	66	68	62.6
Wadsworth	Max. 87	Min. 66	73	65	78	84	88	80	92	93	93	95	98	98	97	94	95	95	96	97	95	98	100	101	101	93	92	93	95	97	96	91.3	
Winnemucca	Max. 91	Min. 65	79	72	79	86	80	88	96	99	97	99	100	102	102	93	93	93	93	93	95	95	93	93	93	92	95	92	94	92	94	92	94.2
Wood	Max. 46	Min. 41	48	50	54	59	59	57	58	65	65	65	65	60	63	65	62	55	55	70	65	63	66	70	70	70	61	70	75	61	65	65	60.9
Tybo	Max. 88	Min. 19	41	32	46	54	31	35	39	45	45	45	44	40	40	47	43	45	47	41	40	44	44	47	45	49	42	47	44	48	41	44	88.7
Tecoma	Max. 49	Min. 40	40	40	45	40	45	48	44	49	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45.9
Wabaska	Max. 49	Min. 40	40	40	45	40	45	48	44	49	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	46.6
Wadsworth	Max. 86	Min. 72	62	67	70	77	70	78	83	92	91	91	91	91	92	92	88	88	90	94	97	96	94	92	93	93	92	87	86	90	88	92	87.1
Winnemucca	Max. 48	Min. 24	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44.5
Winnemucca	Max. 79	Min. 53	52	62	66	72	73	75	85	89	88	87	86	91	81	82	79	83	91	97	94	92	92	92	93	93	92	87	86	91	87	83.0	
Wood	Max. 53	Min. 33	39	47	41	38	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	50.3
Wood	Max. 80	Min. 70	56	61	64	70	76	74	82	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85.3
Modena (Utah)	Max. 47	Min. 35	33	40	33	32	34	38	44	45	46	48	45	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44.3
Modena (Utah)	Max. 80	Min. 74	67	68	72	79	82	84	86	89	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88.9
Modena (Utah)	Max. 64	Min. 48	31	41	35	40	45	55	49	50	46	50	47	50	54	66	50	49	45	45	45	50	60	55	54	64	60	53	56	50	55	55	50.8

*Extremes of temperature from readings of ordinary thermometer at 7 a. m., 2 p. m. and 9 p. m.

TOTAL PRECIPITATION FOR JULY, 1902



DAILY PRECIPITATION FOR JULY, 1902.

[illegible]

* Precipitation included in that of following day.

CARSON CITY, NEVADA:

STATE PRINTING OFFICE, - - ANDREW MAUTE, SUPT.

1902

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551.03
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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR AUGUST, 1902.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

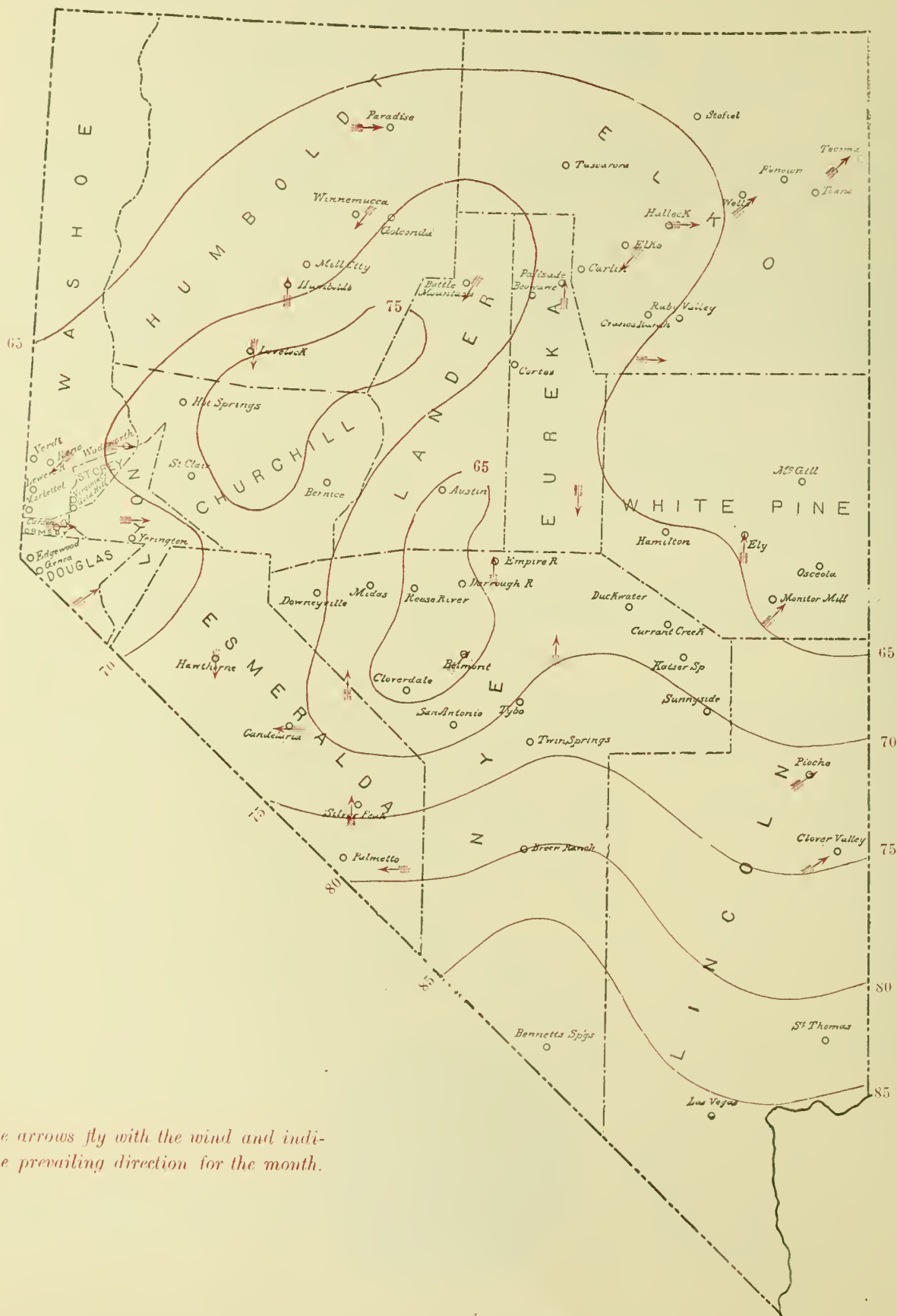
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR AUGUST, 1902



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL. XVI.

CARSON CITY, NEVADA.

No. 8.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.89 inches.

The highest pressure, 30.19 inches, was recorded at Winnemucca, on the 31st, and the lowest, 29.68 inches, at Winnemucca, on the 23d. The absolute range of pressure for the State was 0.51 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the reports of thirty-three stations, was 68.9, or 3.1 below normal.

By sections, the means were: Northern, 69.4; eastern, 63.9; central, 66.4; western, 67.6; southern, 71.2.

The highest monthly mean, 86.2, was recorded at Rioville, Lincoln county.

The lowest monthly mean, 62.8, was recorded at Monitor Mill, White Pine county.

The highest temperature recorded during the month was 117, at Rioville, Lincoln county, on the 2d.

The lowest temperature recorded during the month was 30, at Monitor Mill, White Pine county, on the 17th, and Wood, Elko county, on the 18th.

The absolute range of temperature for the State was 87.

The greatest local daily range of temperature at stations equipped with self-registering thermometers was 61, at Quinn River Ranch, Humboldt county, on the 28th, and the least, 6, at Silver Peak, Esmeralda county, on the 10th.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 0.22 of an inch, or about 0.13 of an inch below normal, and 1.92 inches below the average for the corresponding month of 1901.

By sections, the averages were as follows: Northern, 0.06 of an inch; eastern, 0.27 of an inch; western, 0.28 of an inch; central, 0.13 of an inch; southern, 0.59 of an inch.

The greatest monthly amount, 2.13 inches, was recorded at Palmetto, Esmeralda county, and the least, none, at several stations.

The greatest amount recorded in any twenty-four consecutive hours was 0.86 of an inch, at Candelaria, Esmeralda county, on the 11th.

Wind and Weather.

The prevailing direction of the wind was from the southwest.

The total movement of the wind at Carson City was 3,886 miles; Winnemucca, 5,837 miles, and at Modena (Utah), 8,625 miles.

The maximum velocity at Carson City was 27 miles per hour, from the southwest, on the 13th; Winnemucca, 40 miles per hour, from the southwest, on the 12th, and 36 miles per hour, from the southwest, at Modena (Utah), on the 7th.

The average number of clear days was 21; partly cloudy, 5; cloudy, 5; days with .01 of an inch or more of precipitation, 2.

Relative Humidity.

Carson City—8 a. m., 61 per cent; 8 p. m., 32 per cent; monthly mean, 18 per cent.

Winnemucca—8 a. m., 53 per cent; 8 p. m., 28 per cent; monthly mean, 40 per cent.

Modena (Utah)—8 a. m., 45 per cent; 8 p. m., 17 per cent; monthly mean, 31 per cent.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR AUGUST DURING THE PAST FOURTEEN YEARS.

Year.	Temperature			Average precipitation, Inches and hundredths.
	Mean.	Highest.	Lowest.	
1889	73.2	117	29	1.06
1890	70.1	109	28	2.06
1891	72.0	101	25	0.44
1892	71.2	105	20	0.01
1893	71.1	101	25	0.26
1894	71.0	105	30	0.45
1895	70.6	112	24	0.63
1896	69.0	109	34	0.82
1897	73.3	110	31	0.31
1898	73.6	112	29	0.45
1899	63.7	99	20	0.82
1900	66.6	110	30	0.04
1901	68.3	101	29	2.05
1902	68.9	117	30	0.22

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Rainbow—Eureka, 11th.

Thunder Heard—Lewers' Ranch, 7th, 14th.

Frost, Light—Crane's Ranch, 16th, 17th, 18th.

Solar Halos—Modena (Utah), 8th, 9th, 22d, 28th.

Hail—Carson City, 10th; Candelaria, 7th; Palmetto, 8th, 10th, 11th.

High Winds—Belmont, 13th; Butler (Tonopah), 13th, 17th; Eureka, 10th; Palmetto, 7th, 13th, 26th; Potts, 5th; 6th, 7th, 21st; Reno, 8th, 12th; Rioville, 11th.

Thunderstorms—Belmont, 5th, 6th, 7th, 8th, 22d; Carson City, 7th, 8th, 10th, 11th, 13th, 23d, 29th; Martin's Ranch, 6th, 7th, 8th, 13th, 20th, 23d; Candelaria, 6th, 7th, 9th, 10th, 11th; Butler (Tonopah), 7th, 8th, 11th; Potts, 5th, 6th, 7th, 10th, 11th, 12th; Reno, 7th, 14th; Rioville, 22d; Sodaville, 11th, 12th, 29th; Morey, 4th, 5th, 6th, 7th, 9th, 11th; Palmetto, 2d, 5th, 6th, 7th, 8th, 9th, 10th, 11th; Winnemucca, 11th, 12th, 13th; Modena (Utah), 3d, 4th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 23d.

OBSERVERS' REMARKS.

GOLCONDA—Cloudburst in the mountains on the 11th causing flood and washing out of railroad track.

L. L. MUSHETT.

QUINN RIVER RANCH—It has rained all around this place within a radius of 15 miles, but none fell here.

F. M. PAYNE.

RENO—Large forest fires in western mountains from 3d to

ALFRED DOTEN.

A. H. WISEMAN.

MISS BESSIE POTTS.

Carson City	NW	NW	NW	SW	SW	W-SW NW	S	S	S	S	S	S	NW	SE	W	W	NW	W	W	W	W NW	NW	NW	NW
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CLIMATOLOGICAL DATA FOR AUGUST, 1902.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).						Precipitation (inches).					Sky.					Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 4 days.	Total snowfall (melted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number overcast days.			
Northern Section.																					
Battle Mountain—1	Lander	4,511	32	72.0	—2.7	107	7	36	31	58	0.10	—0.02	0.10	0.0	1	27	0	4	NW	Agent So. Pacific Co.	
Beowawe—3	Eureka	4,695	32	73.3	—1.6	103	7	50	30	—	0.10	0.02	0.10	0.0	1	3	0	28	S	Agent So. Pacific Co.	
Carlin—3	Elko	4,897	32	—	—	—	—	—	—	—	0.00	—0.17	0.00	0.0	0	27	0	4	—	Agent So. Pacific Co.	
Crane's Ranch†	Elko	5,350	15	—	—	—	—	—	—	—	0.10	0.17	0.10	0.0	1	28	2	1	W	W. T. Crane	
Elko—1	Elko	5,063	32	65.8	—4.6	100	4	32	31	56	0.10	—0.06	0.10	0.0	1	—	—	—	NE	C. H. Sprinkle	
Penelon—3	Elko	6,128	15	—	—	—	—	—	—	—	T	—0.34	T	0.0	0	30	0	1	SW	Agent So. Pacific Co.	
Golconda—3	Humboldt	4,392	24	—	—	97	3	42	18	—	0.37	+0.32	0.25	0.0	2	27	0	4	SW	Agent So. Pacific Co.	
Halleck—3	Elko	5,229	30	66.9	—2.9	97	6	40	24	—	0.25	+0.08	0.25	0.0	1	28	0	3	W	Agent So. Pacific Co.	
Humboldt—1	Humboldt	4,236	31	68.6	—4.7	96	6	43	31	40	T	—0.03	T	0.0	0	28	1	2	S	Agent So. Pacific Co.	
Lee	Elko	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Miss Jennie Williams	
Lovelock—1	Humboldt	3,977	11	77.0	—1.5	98	6	57	16	35	0.00	—0.00	0.00	0.0	0	23	0	8	N	Agent So. Pacific Co.	
Mill City—3	Humboldt	4,225	14	75.0	—0.6	100	6	48	30	—	0.00	—0.12	0.00	0.0	0	25	3	3	—	Agent So. Pacific Co.	
Owyhee—1	Elko	6,000	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Palisade—1	Eureka	4,821	21	67.5	—5.5	98	2	35	31	52	0.00	—0.21	0.00	0.0	0	29	1	1	—	Agent So. Pacific Co.	
Quinn River Ranch¶—1	Humboldt	4,850	1	66.8	—	102	6	33	13	61	0.00	—	0.00	0.0	0	19	12	0	W	F. M. Payne	
Tecoma—1	Elko	4,812	25	—	—	97	4	—	—	—	0.00	—0.14	0.00	0.0	0	27	1	3	SW	Agent So. Pacific Co.	
Toano—3	Elko	5,975	33	—	—	98	4	53	30	—	0.00	—0.20	0.00	0.0	0	25	5	1	SW	Agent So. Pacific Co.	
Wells—3	Elko	5,623	31	68.2	—3.6	98	8	44	18	—	0.00	—0.22	0.00	0.0	0	18	0	13	SW	Agent So. Pacific Co.	
Winnemucca—1	Humboldt	4,432	24	68.0	—2.6	97	6	38	30	44	0.02	—0.09	0.02	0.0	1	20	8	3	NE	U. S. Weather Bureau	
Wood—1	Elko	6,000	3	63.7	—	91	3	30	18	51	0.02	—	0.02	0.0	1	21	8	2	—	A. H. Wiseman	
Eastern Section.																					
Means	—	—	—	69.4	—3.0	107	7	30	18	61	0.06	—0.09	0.25	0.0	1	24	2	5	SW	—	
Ely—2	White Pine	6,000	15	65.0	—0.5	95	2	34	16	45	0.26	—0.89	0.20	0.0	6	7	16	8	S	M. B. Garaghan	
Hamilton—1	White Pine	7,977	2	—	—	—	—	—	—	—	—	—	—	0.0	—	—	—	—	—	Mrs. J. F. Beck	
Monitor Mill—1	White Pine	6,400	4	62.8	—	92	2	30	17	49	0.28	—	0.26	0.0	2	17	6	8	SW	Jas. B. Orr	
Means	—	—	—	63.9	—	95	2	30	17	49	0.27	—	0.26	0.0	4	12	11	8	SW	—	
Central Section.																					
Austin—1	Lander	6,594	14	64.8	—4.3	89	4	42	12	36	0.32	—0.14	0.17	0.0	2	—	—	—	—	G. M. Dyer	
Eureka—1	Eureka	4,392	14	67.8	—7.3	99	7	40	17	44	T	—0.48	T	T	0	18	7	6	N	J. M. Broy	
Potts—1	Nye	6,990	10	66.6	—9.5	96	22	40	31	47	0.06	—0.57	0.06	0.0	1	12	4	15	S	Miss Bessie Potts	
Means	—	—	—	66.4	—7.0	99	7	40	17	47	0.13	—0.40	0.17	T	1	15	6	10	S	—	
Western Section.																					
Carson City—2	Ormsby	4,660	23	65.3	—1.5	97	6	36	31	50	0.27	+0.14	0.16	0.0	4	21	9	1	NW	C. W. Friend	
Carson City (W. R.)—1	Ormsby	4,720	13	65.8	—1.0	96	6	42	31	42	0.18	+0.05	0.13	0.0	4	15	12	4	W	U. S. Weather Bureau	
Hot Springs—3	Churchill	4,072	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Agent So. Pacific Co.	
Lewers' Ranch‡—1	Washoe	5,200	15	67.2	—2.3	99	6	41	15	44	0.28	—0.08	0.18	0.0	2	17	10	4	SW	E. R. Lewers	
Martin's Ranch‡—2	Douglas	4,830	4	65.8	—1.0	100	5	36	31	57	0.17	+0.04	0.17	0.0	1	23	6	2	SW	Mrs. J. H. Martin	
Reno—1	Washoe	4,484	32	67.2	—3.2	96	6	43	15	42	0.42	—0.36	0.18	0.0	5	19	10	2	NW	State University	
Verdi—3	Washoe	4,895	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Agent So. Pacific Co.	
Wabuska—1	—	—	—	68.2	—	102	6	38	24	60	0.50	—	0.35	0.0	2	21	0	10	SW	J. H. Harcourt	
Wadsworth—1	Washoe	4,077	31	73.8	—4.0	98	6	43	24	44	0.15	+0.05	0.15	0.0	1	26	5	0	W	Agent So. Pacific Co.	
Means	—	—	—	67.6	—2.2	102	6	36	31	60	0.28	—0.03	0.35	0.0	3	20	8	3	SW	—	
Southern Section.																					
Belmont—1	Nye	8,132	11	64.3	—2.7	90	4	41	16	34	0.31	—0.47	0.17	0.0	4	19	7	5	SW	W. N. Granger	
Butler (Tonopah)—1	Nye	—	—	64.2	—	96	6	31	29	50	—	—	—	0.0	—	15	0	16	S	Al. E. Rule	
Candelaria—2	Esmeralda	5,783	13	72.8	—1.2	102	6	49	17	35	0.90	+0.55	0.86	0.0	3	16	6	9	E	A. G. Draper	
Hawthorne—1	Esmeralda	4,569	15	72.2	—3.9	99	7	50	11	38	0.00	—0.45	0.00	0.0	0	23	3	5	N	T. G. Watterson	
Morey—1	Nye	7,384	—	70.6	—	103	1	44	21	48	0.35	—	0.20	0.0	2	20	11	0	S	Jas. B. Gilmore	
Palmetto—2	Esmeralda	6,500	13	62.9	—2.5	92	2	37	17	43	2.13	+0.63	0.82	0.0	7	15	9	7	E	Wm. Oothout, Jr.	
Rioville—1	Lincoln	—	—	86.2	—	117	2	53	18	52	0.22	—	0.22	0.0	1	—	—	—	—	Daniel Bonelli	
Silver Peak—2	Esmeralda	4,382	7	72.2	—	100	2	50	22	40	—	—	—	0.0	—	12	10	9	S	H. Latter	
Sodaville—1	Esmeralda	4,665	4	75.4	—	105	6	50	24	45	0.22	—	0.17	0.0	2	18	9	4	NW	Agent So. Pacific Co.	
Means	—	—	—	71.2	—2.6	117	2	31	29	52	0.59	+0.06	0.86	0.0	3	17	7	7	S	—	
State Means	—	—	—	68.9	—3.1	117	2	30	17	61	0.22	—0.13	0.86	0.0	2	21	5	5	SW	State Means	
Miscellaneous.																					
Modena (Utah)—1	Iron	5,479	—	69.0	—	97	2	41	31	43	1.58	—	0.98	0.0	5	19	9	3	SW	U. S. Weather Bureau	
—																					
—																					
—																					

REFERENCES: 1. Weather Bureau maximum and minimum thermometers in use; 2. self-registering maximum and minimum thermometers, not Weather Bureau, in use; 3. means and extremes of temperature from observations by ordinary thermometers at 7 a. m., 2 p. m. and 9 p. m. A small letter placed before the name of a station or against the data in the body of the form, indicates the number of days missing from the record, for instance, "n" denotes 14 days missing. *Italic figures* indicate that the maximum or minimum occurred on several dates. T indicates trace of precipitation. All records are used in determining State and district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

* Not considered in computing State or district means.

† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. || Postoffice—Elko. ¶ Postoffice—Amos.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR AUGUST, 1902.

Stations.	Day of Month.																															Monthly Means.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Austin	Max. 87	86	82	89	88	88	89	86	86	84	67	71	75	73	73	70	68	74	78	72	75	80	84	79	79	78	74	72	71	70	71	78.0	
Min. 51	58	57	50	60	61	62	63	61	59	58	54	48	42	47	46	45	45	42	50	49	49	52	55	53	52	52	48	47	46	45	45	51.5	
Battle Mountain	Max. 102	99	104	103	103	104	107	104	105	98	88	85	90	91	88	89	85	87	92	92	92	100	94	98	94	92	92	97	96	98	92	96.1	
Min. 48	50	57	57	53	57	53	57	55	47	47	47	49	44	54	46	41	40	40	47	46	47	46	45	56	51	50	51	49	49	43	36	48.5	
Belmont	Max. 88	88	89	90	81	89	87	87	86	70	74	75	76	71	73	72	74	72	78	75	78	81	78	78	77	77	78	68	65	73	76	78.7	
Min. 56	57	57	58	55	57	57	53	58	51	46	45	46	41	45	46	41	44	45	45	44	48	51	48	51	51	48	45	46	46	45	51	49.9	
Butler (Tonopah)	Max. 91	92	94	93	94	96	96	92	83	77	83	81	78	79	81	79	78	83	84	82	83	85	82	82	83	83	82	84	81	79	81	84.5	
Min. 50	49	51	56	56	55	53	51	52	46	37	41	39	39	37	36	35	35	34	36	40	40	48	48	45	47	46	47	43	37	35	41	43.9	
Candelaria	Max. 95	98	97	96	97	102	99	95	87	84	80	80	83	83	83	83	81	84	87	85	85	88	90	87	87	88	86	87	85	79	81	87.8	
Min. 60	64	63	66	67	70	67	67	65	67	64	63	51	52	54	53	52	49	50	55	54	52	57	60	55	55	57	55	55	55	52	53	57.8	
Carlin*	Max.																																
Min.																																	
Carson City	Max. 91	85	91	92	94	97	96	93	85	81	77	80	76	75	77	72	77	80	80	80	83	86	86	85	84	85	83	83	81	81	86	83.9	
Min. 47	48	44	46	44	49	52	57	56	55	56	56	45	49	47	39	51	44	40	44	31	43	44	46	42	46	44	41	41	45	40	36	46.7	
Carson City (W. R.)	Max. 89	82	88	93	93	96	95	90	87	83	74	76	75	74	75	69	75	78	77	78	81	85	85	85	80	83	82	81	77	80	84	82.2	
Min. 50	53	49	52	54	55	60	58	58	58	57	45	49	49	44	54	45	44	45	46	46	46	48	50	45	46	47	45	48	43	42	42	46.5	
Elko	Max. 99	93	96	100	95	98	96	93	92	94	90	89	81	83	80	81	75	75	83	85	83	85	88	90	91	89	88	83	81	79	78	87.5	
Min. 44	40	46	44	44	44	48	53	50	42	44	54	47	43	50	40	38	36	35	45	44	41	40	40	40	47	46	41	52	43	42	37	44.1	
Ely	Max. 94	95	94	87	91	92	91	89	90	75	82	81	80	82	82	87	80	81	84	83	84	85	82	83	84	82	83	80	78	74	78	84.3	
Min. 51	56	58	50	52	51	55	50	52	50	45	47	46	40	41	34	38	41	38	44	42	42	41	37	47	49	51	43	43	41	37	42	45.8	
Eureka	Max. 94	96	93	94	91	93	99	93	91	90	76	82	78	79	80	81	78	81	84	82	83	85	83	82	83	84	82	83	83	83	75	76	85.0
Min. 55	62	56	54	56	55	62	57	55	54	53	47	49	40	41	47	51	45	41	54	53	52	53	52	50	48	46	41	50	47	41	50	50.7	
Halleck*	Max. 95	94	96	96	95	97	90	88	92	93	68	70	85	82	88	78	82	80	85	88	87	88	87	88	90	88	88	85	86	79	78	86.6	
Min. 58	55	56	62	60	60	58	60	60	60	50	60	54	48	54	47	45	46	44	52	48	47	47	47	40	54	52	53	52	48	42	42	51.4	
Hamilton	Max.																																
Min.																																	
Humboldt	Max. 87	90	93	92	93	96	93	92	90	92	78	75	79	80	75	74	74	76	80	82	83	86	88	88	85	86	84	83	82	80	82	80	84.2
Min. 53	60	56	59	58	59	66	60	58	59	63	45	48	50	57	50	44	45	48	50	53	46	50	50	50	53	54	55	55	55	45	43	53.1	
Hawthorne	Max. 92	93	96	94	95	95	99	98	95	93	84	78	83	80	80	79	80	81	83	85	88	85	89	91	90	88	89	93	81	84	78	87.4	
Min. 59	55	63	65	65	67	68	67	66	64	50	55	53	50	55	54	54	52	55	55	53	55	54	53	57	57	56	55	51	50	51	56.9		
Lewers' Ranch	Max. 90	89	90	92	97	99	96	94	88	83	87	80	77	78	74	80	80	80	81	82	85	88	87	87	85	83	84	82	83	88	88	85.4	
Min. 48	53	57	52	55	57	60	58	56	50	47	48	46	41	45	42	41	45	45	49	49	49	49	49	49	49	46	49	47	46	47	44	49.1	
Lovelock	Max. 97	96	97	95	96	98	96	98	92	90	87	82	83	85	85	89	90	91	88	89	90	92	91	86	90	91	88	89	90	91	92	87	90.9
Min. 75	76	72	70	67	69	62	63	62	67	66	62	60	61	60	57	58	60	62	60	62	61	60	62	60	62	60	59	62	63	60	62	63.2	
Martin's Ranch	Max. 90	93	95	97	100	99	95	91	86	82	75	81	74	81	84	80	82	85	87	86	86	86	85	90	87	80	86	84	88	86	93	87.2	
Min. 40	46	43	46	48	50	49	55	55	56	59	43	39	46	38	43	38	38	44	46	41	42	42	46	40	43	42	41	41	42	40	36	44.4	
Monitor Mill	Max. 90	92	91	88	90	89	88	87	76	77	80	74	76	79	78	76	78	78	80	80	81	82	84	83	89	90	89	88	89	78	74	77	82.1
Min. 52	48	54	45	46	51	52	46	47	48	40	47	42	40	40	40	40	40	43	43	41	38	46	49	45	48	45	40	37	31	35	35	43.6	
Morey	Max. 103	99	99	94	96	98	94	98	76	84	86	86	82	87	93	87	87	87	85	87	85	87	87	88	88	85	86	87	85	85	89.2	85.9	
Min. 55	57	61	61	58	63	60	60	59	56	47	46	50	45	49	50	45	49	50	46	44	40	47	56	56	50	52	54	45	45	50	48	51.9	
Palmetto	Max. 88	92	90	92	90	88	90	84	78	75	73	73	73	73	75	78	76	78	77	77	79	80	80	80	78	76	80	80	78	78	82	80.4	
Min. 49	52	50	56	56	56	55	56	55	55	57	43	41	40	39	40	39	40	39	40	38	39	41	41	45	40	43	41	43	40	38	39	45.4	
Palisade	Max. 98	95	94	96	94	96	94	98	96	94	95	85	86	82	80	81	87	88	89	90	92	90	92	90	93	93	90	92	86	81	83	88.8	
Min. 48	49	47	48	50	51</																												

SCALE OF SHADES — Inches.

$\frac{1}{4}$.	$\frac{1}{4}$ to $\frac{1}{2}$.	$\frac{1}{2}$ to 1.	1 to 2.
			Over 2.


0 to $\frac{1}{4}$. $\frac{1}{4}$ to $\frac{1}{2}$. $\frac{1}{2}$ to 1. 1 to 2. Over 2.

DAILY PRECIPITATION FOR AUGUST, 1902.

Stations.	Day of Month.																															Total.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Northern Section.																																	
Battle Mountain												.10																					0.10
Beowawe											.10																						0.10
Carlin											.10																						0.00
Crane's Ranch												.10																					0.10
Elko																																	0.10
Fenelon											T																						T
Golconda											.25	.12																					0.37
Halleck											.25	T																					0.25
Humboldt																																	
Lee																																	
Lovelock																																	0.00
Mill City																																	0.00
Owyhee																																	
Palisade																																	
Quinn River Ranch																																	
Tecoma																																	0.00
Toano																																	0.00
Wells											.02	T	T																				0.00
Winnemucca											.02																						0.02
Wood											.02																						0.02
Eastern Section.																																	
Ely				.20			.01				.02	.01	.01										.01										0.26
Hamilton											.02		.26																				
Monitor Mill				T			T																										
Central Section.																																	
Austin											.17	.15																					0.32
Eureka											T	T																					T
Potts											.06																						0.06
Western Section.																																	
Carson City											.06	.04		.14	.03																		0.27
Hot Springs																																	
Lewers' Ranch												.10	.18																				0.28
Martin's Ranch											.03	.04	T	.07	.18																		0.17
Reno							.10																										0.42
Verdi																																	
Wabaska												.15	.35																				0.50
Wadsworth													.15																				0.15
Southern Section.																																	
Belmont					.11	T	.01	T			T	.17																					0.31
Butler (Tonapah)						.01	.03	T	T	T	.86	T																					0.90
Candelaria																																	0.00
Hawthorne							.15	T	T	T																							0.35
Morey				.20																													
Palmetto					.12	.10	.18	.58	.15	.18	.82																						2.13
Rioville				T	T																	.22	T										0.22
Silver Peak																																	
Sodaville							T	T		T	.17	.05																					0.22
Miscellaneous.																																	
Modena (Utah)				T	.42	T		T	T	.02	.06	.10		.98																			1.58

T indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA :

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1902

U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR SEPTEMBER, 1902.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU.

BY

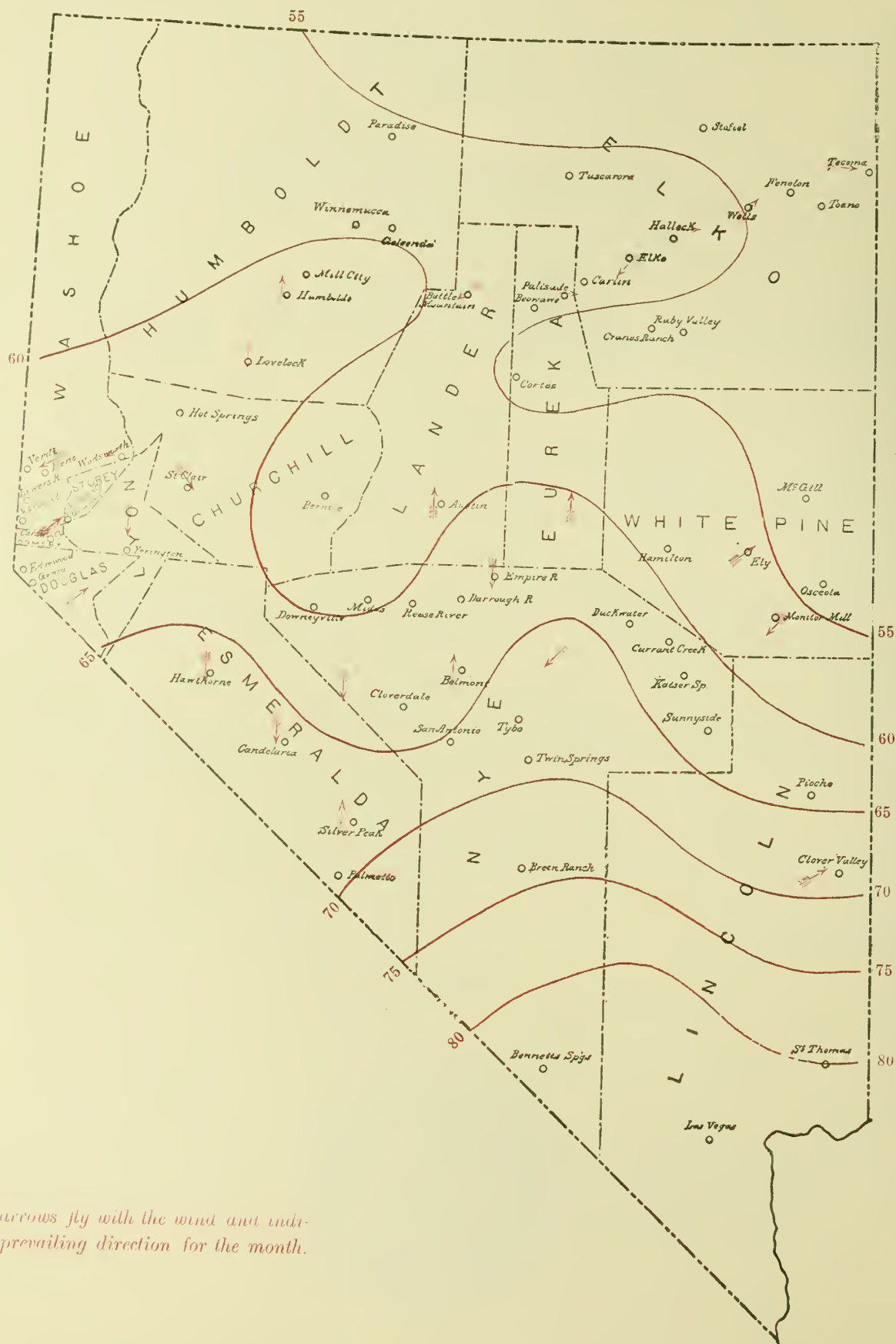
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR SEPTEMBER, 1902



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director.

CARSON CITY, NEVADA.

VOL. XVI.

CARSON CITY, NEVADA.

No. 9.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.93 inches.

The highest pressure, 30.28 inches, was recorded at Winnemucca, on the 26th, and the lowest, 29.18 inches, at Modena (Utah), on the 19th. The absolute range of pressure for the State was 0.81 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the reports of thirty-four stations, was 61.7, which is about normal.

By sections, the means were: Northern, 59.8; eastern, 56.5; central, 58.8; western, 62.1; southern, 66.3.

The highest monthly mean, 84.0, was recorded at Rioville, Lincoln county.

The lowest monthly mean, 55.4, was recorded at Elko, Elko county.

The highest temperature recorded during the month was 113, at Rioville, Lincoln county, on the 6th.

The lowest temperature recorded during the month was 10 above zero, at Quinn River Ranch, Humboldt county, on the 29th.

The absolute range of temperature for the State was 103.

The greatest local daily range of temperature at stations equipped with self-registering thermometers was 65, at Palisade, Eureka county, on the 13th, and the least, 11, at Monitor Mill, White Pine county, on the 20th.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 0.21 of an inch, or about 0.11 of an inch below normal.

By sections, the averages were as follows: Northern, 0.23 of an inch; eastern, 0.65 of an inch; western, 0.10 of an inch; central, 0.45 of an inch; southern, 0.06 of an inch.

The greatest monthly amount, 1.00 inch, was recorded at Eureka, Eureka county, and the least, none, at several stations.

The greatest amount recorded in any twenty-four consecutive hours was 0.82 of an inch at Tecoma, Elko county, on the 19th and 20th.

Wind and Weather.

The prevailing direction of the wind was from the southwest.

The total movement of the wind at Carson City was 3,827 miles; Winnemucca, 4,897 miles, and at Modena (Utah), 7,612 miles.

The maximum velocity at Carson City was 36 miles per hour, from the southwest, on the 12th; Winnemucca, 37 miles per hour, from the southwest, on the 19th, and 47 miles per hour, from the south, at Modena (Utah), on the 19th.

The average number of clear days was 19; partly cloudy, 5; cloudy, 6; days with .01 or more of an inch of precipitation, 2.

Relative Humidity.

Carson City—8 a. m., 60 per cent; 8 p. m., 28 per cent; monthly mean, 44 per cent.

Winnemucca—8 a. m., 62 per cent; 8 p. m., 32 per cent; monthly mean, 47 per cent.

Modena (Utah)—8 a. m., 12 per cent; 8 p. m., 19 per cent; monthly mean, 31 per cent.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR SEPTEMBER DURING THE PAST FOURTEEN YEARS.

Year.	Temperature			Average precipitation, Inches and hundredths.
	Mean.	Highest.	Lowest.	
1889	61.7	110	13	0.55
1890	61.2	110	18	0.81
1891	58.9	98	5	0.94
1892	62.8	109	15	0.09
1893	57.5	99	16	0.51
1894	58.4	96	10	0.35
1895	59.9	106	0	0.27
1896	58.3	102	15	0.35
1897	60.4	105	21	0.16
1898	61.1	97	18	0.20
1899	63.0	98	21	0.05
1900	56.1	99	17	0.30
1901	56.2	95	20	0.39
1902	61.7	113	10	0.21

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Fog—Morey, 16th.

Halo, Lunar—Modena (Utah), 13th.

Hail—Palmetto, 14th; Lewers' Ranch, 19th; Modena (Utah), 15th.

Haze, Dense—Palmetto, 16th, 17th, 18th; Wabuska, 20th; Potts, 14th, 15th, 16th, 17th, 18th, 19th, 20th; Winnemucca, 15th.

Thunderstorms—Wood, 18th; Palmetto, 10th, 13th, 14th; Sodaville, 13th; Reno, 14th; Morey, 15th; Monitor Mill, 15th; Martin's Ranch, 13th, 14th; Lewers' Ranch, 13th; Candelaria, 14th; Belmont, 14th; Modena (Utah), 14th, 15th, 16th; Carson City, 13th, 14th.

Winds, High—Palmetto, 19th, 20th, 24th, 28th; Halleck, 4th; Wabuska, 30th; Rioville, 25th; Reno, 14th, 19th; Morey, 28th; Martin's Ranch, 24th; Lewers' Ranch, 19th; Butler (Tonopah), 19th, 24th; Winnemucca, 19th; Carson City, 12th; Modena (Utah), 19th.

Frost, Killing—Wood, 17th; Palmetto, 21st, 25th, 26th, 29th; Carson City, 21st, 22d, 26th, 27th, 29th, 30th; Ely, 25th; Elko, 16th; Butler, 19th; Candelaria, 26th; Golconda, 29th; Mill City, 26th; Belmont, 25th, 28th; Crane's Ranch, 17th; Toano, 29th; Palisade, 1st; Battle Mountain, 17th; Halleck, 17th; Austin, 20th; Wadsworth, 26th; Wabuska, 20th; Tecoma, 16th; Sodaville, 25th, 28th, 29th, 30th; Silver Peak, 29th; Reno, 27th, 29th; Quinn River Ranch, 17th; Potts, 18th; Hawthorne, 26th; Winnemucca, 20th; Morey, 20th; Monitor Mill, 16th; Martin's Ranch, 21st; Lewers' Ranch, 25th; Humboldt, 25th; Eureka, 20th.

REVIEW OF WEATHER AND CROP CONDITIONS, SEASON OF 1902.

JANUARY was an unusually dry and comparatively mild month. With the exception of a few stormy days during the last week, the weather was generally fair and quite pleasant. Conditions were very favorable to stock interests on account of the absence of severe storms and extremely cold weather. The snowfall was remarkably light.

FEBRUARY averaged warmer than usual, with an excess of precipitation, which was quite evenly distributed over the State. The storms during the latter part of the month increased the stock of snow in the mountains to a considerable extent, and made prospects much brighter for a water supply during the summer months.

MARCH opened cold and blustry, with high winds and heavy snows on the 1st and 2d; the remainder of the month was generally fair, but much colder than the average March. Live stock wintered well, and at the beginning of spring were in pretty fair condition generally. There was some plowing done in the west and south portions during the warm periods of the month. Vegetation was generally backward in all districts, except the extreme south portion, at the close of the month. The stock of snow in the mountains at the end of the month was considered ample to furnish irrigation water until late in the summer.

APRIL averaged about normal with respect to temperature and precipitation, but the weather was too cold during the greater part of the month for the germination of seed and growth of vegetation. Cold north winds and low night temperatures were the prevailing features of the weather during the month. Seeding was well advanced in the south and west portions by the 15th, and well under way in the remaining districts at the close of the month. In the semitropical belt of the State vegetation was in a flourishing condition at the end of March. A heavy frost occurred on the 25th, doing some damage to alfalfa, garden truck and fruit buds in the west and southwest portions of the State.

MAY, like April, was an unfavorable month for the growth of vegetation. The usual and expected frosts were in evidence throughout the month, but they were not so destructive as in former years. However, they did more or less damage to fruit buds and tender vegetation in various parts of the State. Spring seeding was well advanced in all districts by the middle of the month. In the south portion of Lincoln county the first crop of alfalfa was being cut the latter part of the month. Range feed was fair in most localities and live stock improved in condition. At the close of the month the fruit prospects were excellent.

JUNE was a fine month for growth, and crops of all kinds made rapid progress. In the southern portion of the State the ranges and crops in general were unfavorably affected by hot, drying winds, which were prominent features of the weather in that section of the State during the entire summer. Strawberries were ripe in Washoe valley about the 10th, and early vegetables were plentiful in the local markets

about the 15th. Wheat and barley began to head out about the 20th, somewhat later than usual. Harvesting alfalfa was quite general over the State about the middle of the month, and a good yield was secured in most districts. Irrigation water was plentiful in all sections throughout the month. Range feed was fine and live stock did well. Fruit prospects excellent at end of the month.

JULY—Abnormally cold weather for July prevailed the first week of the month. Freezing temperatures occurred in many localities on the 2d and 3d, and considerable snow fell on the mountains in the northern and western sections during the night of the 2d. The weather was extremely warm during the last decade of the month, but very favorable for harvesting operations and the growth of irrigated crops. Harvesting hay and grain was somewhat general throughout the month, and in the south portion of Lincoln county threshing was in progress the first week. Grasshoppers were somewhat numerous in Lincoln, Nye and Elko counties, and did considerable damage to growing crops. Water was quite low in the streams and irrigating ditches at the close of the month, and in some localities it had failed entirely. Wheat and barley ripened rapidly and were ready to harvest about the 25th. Range feed dried up rapidly, especially in the south portion, where it was short and scarce toward the latter part of the month.

AUGUST was an exceptionally fine month for harvesting operations and the growth of crops under proper irrigation. Wheat and barley were being cut the third week, and the harvesting of the second crop of alfalfa was in progress about the middle of the month. The harvesting of grain and hay was general over the State the latter part of the month. Owing to a lack of water the grain crops of Lovelock valley were somewhat lighter than usual, but the hay crop was about average. Apricots, plums and blackberries were ripe and being marketed about the middle of the month. In many localities water was very short throughout the month, and in a few places pumping water for stock was necessary. In the south portion of Lincoln county threshing was finished early in the month and the results were somewhat unsatisfactory. Wheat was shrunk, and barley and oats were light and below the average yield.

SEPTEMBER was an exceptionally fine month for gathering crops, threshing grain and baling hay. The weather was warm, clear and remarkably fine for harvest work. There were no damaging frosts until the latter part of the month, giving late crops ample time to mature in excellent condition. Farming operations were practically completed by the close of the month, with the exception of digging potatoes. The yield of wheat, oats, rye and barley was about average in most districts. The first cut of alfalfa was somewhat light in a few places, but the second and third cuttings were better than usual in all sections. The fruit crop was very good and about the same as last year. On the whole the season was a favorable and profitable one for Nevada farmers.

AVERAGE HOURLY WIND MOVEMENT FOR SEPTEMBER, 1902.

75th Meridian Time.

Station.	1 a.m.	2	3	4	5	6	7	8	9	10	11	12 noon	1 p.m.	2	3	4	5	6	7	8	9	10	11	12 midn't	For the month.
Carson City	4.7	4.3	4.2	3.5	3.3	3.3	3.3	3.1	3.2	2.2	2.3	2.8	3.6	4.6	5.8	7.4	8.3	10.0	10.0	9.0	9.0	7.9	5.7	5.6	5.3
Winnemucca	6.4	7.0	6.4	6.4	5.6	5.5	5.6	5.8	6.6	6.4	5.8	5.8	6.2	6.7	8.1	9.0	9.4	9.5	9.2	8.0	6.8	5.6	5.4	5.9	6.8
Modena (Utah)	8.6	8.4	8.7	9.1	8.6	8.9	8.2	8.4	7.7	6.8	7.4	9.6	11.9	12.5	13.0	14.2	15.3	15.5	15.8	15.5	12.2	10.0	8.5	8.7	10.6

PREVAILING HOURLY WIND DIRECTION FOR SEPTEMBER, 1902.

Carson City —	NW	NW	SW	SW	SW	SW	S	S	W	SW	SW	SW	SE	E	E	W	E-SW	W	SW	W	NW	NW	NW	NW	SW
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CLIMATOLOGICAL DATA FOR SEPTEMBER, 1902.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).						Precipitation (inches).						Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.			
Northern Section.																					
Battle Mountain—1	Lander	4,511	32	63.2	+0.4	101	7	20	26	61	0.19	-0.05	0.10	0.0	4	16	3	11	SW	Agent So. Pacific Co.	
Beowawe—3	Eureka	4,695	32								T	-0.25	T	0.0	0	9	0	21	S	Agent So. Pacific Co.	
Carlin—3	Elko	4,897	32								0.00	-0.27	0.00	0.0	0	25	5	0		Agent So. Pacific Co.	
Crane's Ranch†	Elko	5,350	15								0.12	-0.20	0.10	0.0	2	24	3	3	W	W. T. Crane	
Elko—1	Elko	5,063	32	55.4	+0.4	92	3	16	29	57	0.00	-0.20	0.00	0.0	0					C. H. Sproule	
Penelon—3	Elko	6,128	15											0.0	2	24	0	6	SW	Agent So. Pacific Co.	
Golconda—3	Humboldt	4,392	24	63.8	+4.5	91	8	29	29		0.32	+0.03	0.32	0.0	1	25	2	3	SW	Agent So. Pacific Co.	
Halleck—3	Elko	5,229	30	57.8	+0.8	92	3	18	26		0.25	+0.13	0.25	T	1	25	0	5	W	Agent So. Pacific Co.	
Humboldt—1	Humboldt	4,236	31	61.0	-1.1	90	9	30	25	41	0.25	-0.09	0.25	0.0	1	22	1	7	S	Agent So. Pacific Co.	
Lee	Elko		4																	Miss Jennie Williams	
Lovelock—1	Humboldt	3,977	11	61.4	-1.5	92	11	38	15	52	0.00	-0.23	0.00	0.0	0	25	1	4	S	Agent So. Pacific Co.	
Mill City—3	Humboldt	4,225	11	61.4	+1.8	92	7	33	26		0.50	+0.30	0.50	0.0	1	19	0	11	S	Agent So. Pacific Co.	
Owyhee—1	Elko	6,000	3																		
Palisade—1	Eureka	4,821	24	58.2	-3.1	96	2	21	26	65	0.00	-0.34	0.00	0.0	0	26	0	4	W	Agent So. Pacific Co.	
Quinn River Ranch‡—1	Humboldt	4,850	1	55.6		93	2	10	29	51	0.21		0.20	0.0	2	23	4	3		F. M. Payne	
Tecoma—1	Elko	4,812	25	59.8	-2.5	98	1	23	26	57	0.81	+0.34	0.82	0.0	2	21	0	9	W	Agent So. Pacific Co.	
Toano—3	Elko	5,975	33			90	3	32	29		0.27	+0.06	0.27	0.0	1	19	5	6	SW	Agent So. Pacific Co.	
Wells—3	Elko	5,623	31	58.3	-1.0	91	1	39	25		0.00	-0.24	0.00	0.0	0	23	0	7	SW	Agent So. Pacific Co.	
Winnemucca—1	Humboldt	4,432	24	59.2	-0.5	92	2	22	29	48	0.72	+0.39	0.52	0.0	3	22	4	4	NE	U. S. Weather Bureau	
Wood—1	Elko	6,000	3	56.9		89	2	20	29	49	0.22		0.14	0.0	3	21	5	4		A. H. Wiseman	
Eastern Section.		Means		59.8	-0.2						0.23	-0.04			1	22	2	6	W		
Ely—2	White Pine	6,000	15	57.4	+2.8	88	3	24	25	49	0.86	+0.30	0.50	T	8	15	3	12	SW	M. B. Garaghan	
Hamilton—1	White Pine	7,977	2																	Mrs. J. F. Beck	
Monitor Mill||—1	White Pine	6,400	4	55.6		88	7	16	28	48	0.44		0.34	0.2	3	16	8	6	NE	Jas. B. Orr	
Central Section.		Means		56.5	+2.8						0.65	+0.30		0.1	5	15	6	9			
Austin—1	Lander	6,594	14	59.4	-1.2	81	2	28	26	41	0.34	-0.03	0.34	0.0	1					G. M. Dyer	
Eureka—1	Eureka			61.0		92	7	21	30	49	1.00		0.50	5.0	2	19	7	4	S	D. M. Broy	
Potts—1	Nye	6,990	10	56.0	-6.1	94	7	20	30	58	0.01	-0.07	0.01	T	1	17	3	10	N	Miss Bessie Potts	
Western Section.		Means		58.8	-3.6						0.45	-0.05		1.7	1	18	5	7			
Carson City—2	Ormsby	4,660	23	60.4	+0.9	93	9	23	26	54	0.15	-0.13	0.14	0.0	2	23	7	0	SW	C. W. Friend	
Carson City (W. B.)—1	Ormsby	4,720	13	61.0	+1.5	92	9	25	26	50	0.12	-0.16	0.12	0.0	1	19	8	3	SW	U. S. Weather Bureau	
Hot Springs—3	Churchill	4,072	15																	Agent So. Pacific Co.	
Lewers' Ranch‡—1	Washoe	5,200	15	63.5	+2.3	95	6	29	29	44	0.25	-0.56	0.20	0.0	2	21	9	0	SW	E. R. Lewers	
Martin's Ranch‡—2	Douglas	4,830	4	62.0	+2.5	97	7	23	26	55	0.12	-0.16	0.12	0.0	1	24	3	3	SW	Mrs. J. H. Martin	
Reno—1	Washoe	4,484	32	62.6	+1.6	94	7	31	29	45	0.09	-0.07	0.08	0.0	2	25	5	0	NW	State University	
Verdi—3	Washoe	4,895	13																	Agent So. Pacific Co.	
Wabuska—1				61.4		100	5	19	25	59	T		T	0.0	0	21	2	7	S	J. H. Harcourt	
Wadsworth—1	Washoe	4,077	31	64.1	-1.9	98	1	27	26	54	0.00	-0.18	0.00	0.0	0	30	0	0	NW	Agent So. Pacific Co.	
Southern Section.		Means		62.1	+1.2						0.10	-0.21		0.0	1	23	5	2	SW		
Belmont—1	Nye	8,132	11	60.0	+2.2	89	8	26	25	38	T	-0.64	T	T	0	17	3	10	NE	W. N. Granger	
Butler (Tonopah)—1	Nye			58.8		91	8	23	29	50	T		T	0.0	0	15	0	15	N	Al. E. Rule	
Candelaria—2	Esmeralda	5,783	13	68.2	+3.5	95	6	33	29	47	T	-0.41	T	0.0	0	17	12	1	N	A. G. Draper	
Hawthorne—1	Esmeralda	4,569	15	66.4	+0.6	93	8	30	29	41	0.00	-0.23	0.00	0.0	0	12	1	17	N	T. G. Watterson	
Morey—1	Nye	7,384		64.4		96	7	29	26	46	0.12		0.12	0.0	1	12	18	0	S	Jas. B. Gilmore	
Palmetto—2	Esmeralda	6,500	13	61.0	+2.9	90	6	20	26	50	0.38	-0.12	0.28	T	2	19	9	2	E	Wm. Oothout, Jr.	
Rioville—1	Lincoln			84.0		113	6	46	27	58	0.00		0.00	0.0	0					Daniel Bonelli	
Silver Peak—2	Esmeralda	4,382	7	66.9		96	9	32	29	48	0.00		0.00	0.0	0	17	8	5	S	H. Latter	
Sodaville—1	Esmeralda	4,665	4	66.8		90	6	30	28	44	T		T	0.0	0	22	7	1	NW	Agent So. Pacific Co.	
State Means				61.7	+0.4						0.21	-0.11			2	19	5	6	SW	State Means	
Miscellaneous.																					
Modena (Utah)—1	Iron	5,479		62.0		92	7	28	29	45	0.76		0.74	0.0	2	22	7	1	SW	U. S. Weather Bureau	

REFERENCES: 1, Weather Bureau maximum and minimum thermometers in use; 2, self-registering maximum and minimum thermometers, not Weather Bureau, in use; 3, means and extremes of temperature from observations by ordinary thermometers at 7 a. m., 2 p. m. and 9 p. m. A small letter placed before the name of a station or against the data in the body of the form, indicates the number of days missing from the record, for instance, "n" denotes 14 days missing. *Italic figures* indicate that the maximum or minimum occurred on several dates. T indicates trace of precipitation. All records are used in determining State and district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

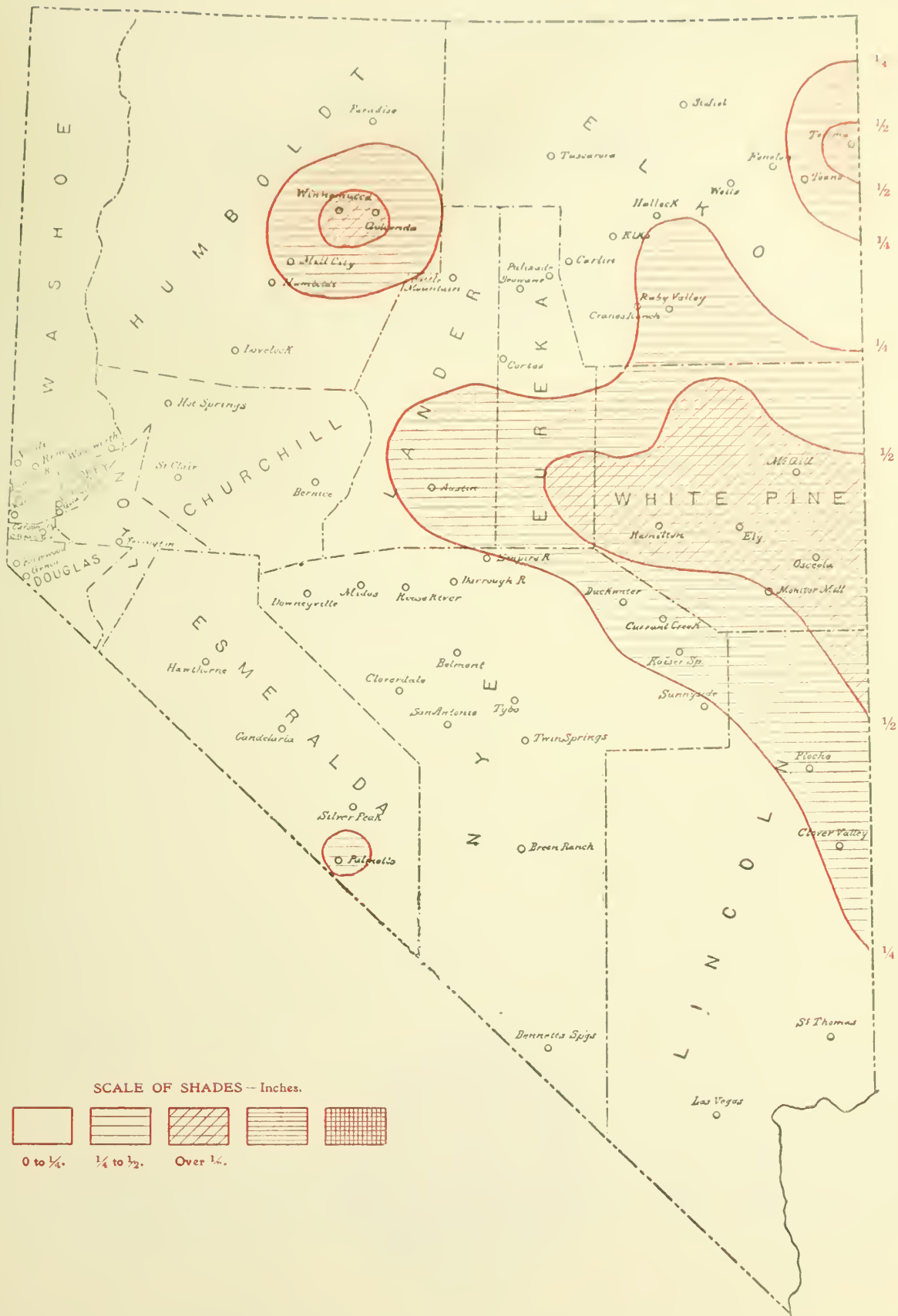
* Not considered in computing State or district means.

† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. || Postoffice—Elko. ¶ Postoffice—Amos.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR SEPTEMBER, 1902.

Stations.		Day of Month.																															Months.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Austin	Max.	82	84	82	81	79	83	84	83	83	81	78	79	80	78	76	71	72	70	67	55	58	68	72	73	69	69	68	66	65	64				
	Min.	53	59	56	55	51	54	55	55	54	56	51	50	48	54	55	49	45	42	39	38	39	40	45	35	29	30	28	35				71.0		
Battle Mountain	Max.	98	98	93	99	95	98	101	97	98	101	95	91	99	100	83	86	84	84	80	58	77	86	78	73	72	79	68	75	86				87.4	
	Min.	41	48	45	45	42	37	45	49	42	45	45	37	43	37	43	36	31	30	31	40	32	34	29	42	42	20	30	53	20	25			39.1	
Belmont	Max.	81	79	80	86	85	85	89	87	82	86	84	82	81	79	75	83	75	73	71	72	50	65	72	75	70	57	61	63	50	63			74.4	
	Min.	58	51	52	51	52	53	56	55	52	48	43	44	37	45	47	48	43	34	34	32	32	45	47	36	26	36	35	26	44	32			45.7	
Butler (Tonopah)	Max.	88	90	88	87	89	90	91	91	91	90	89	88	88	84	80	84	82	80	76	51	68	79	78	81	60	71	77	55	71	72			80.5	
	Min.	42	44	45	42	44	44	44	45	40	41	43	40	38	34	42	43	38	26	26	28	33	34	31	29	32	27	27	23	25			37.2		
Candelaria	Max.	90	92	91	90	92	95	92	95	94	92	91	93	93	88	85	85	82	80	79	74	70	80	83	84	81	71	79	76	73	75			81.9	
	Min.	55	61	61	61	60	61	62	63	64	64	60	60	60	60	61	58	53	52	51	50	37	38	40	47	54	43	34	35	41	33	42		51.4	
Carlin*	Max.																																		
	Min.																																		
Carson City	Max.	90	87	90	89	90	92	92	90	93	90	89	90	88	88	81	81	78	78	67	59	72	80	81	76	59	70	74	61	69	79			80.8	
	Min.	39	46	50	45	44	42	45	48	47	46	44	43	44	43	42	38	38	34	37	38	39	32	36	48	39	28	28	36	23	25			40.0	
Carson City (W. B.)	Max.	91	89	88	87	90	91	90	87	92	88	87	87	87	88	85	80	78	74	66	57	60	78	78	74	60	66	73	58	66	77			79.0	
	Min.	44	50	52	48	49	48	54	52	50	54	46	50	54	46	50	42	42	48	36	37	31	36	40	53	39	25	30	36	26	27			43.1	
Elko	Max.	86	91	92	87	88	85	88	83	84	80	81	89	83	84	83	79	75	81	77	69	53	71	74	78	79	59	66	72	74	62	68			77.9
	Min.	34	45	39	44	34	35	39	43	36	40	36	35	36	40	36	34	32	26	34	36	29	30	33	36	38	18	21	18	16	18			33.0	
Ely	Max.	84	87	88	79	82	85	88	84	84	85	79	83	85	81	74	72	71	70	72	62	63	71	75	71	73	63	73	55	60	65			75.5	
	Min.	44	45	46	47	43	46	46	45	42	43	38	42	52	50	35	41	40	36	33	36	37	38	40	39	24	32	33	24	28	33			39.3	
Eureka	Max.	90	87	90	89	87	88	92	87	90	91	84	88	86	82	83	77	76	71	72	55	72	73	76	77	73	64	76	63	69	70			79.3	
	Min.	48	49	47	48	46	47	52	51	52	54	48	46	46	53	44	42	38	50	48	47	31	35	36	35	54	41	24	42	28	24	21		42.7	
Halleck*	Max.	88	88	92	88	84	85	87	87	88	88	88	86	86	88	87	78	83	70	68	70	52	74	80	80	80	73	75	72	60	70			79.5	
	Min.	40	50	55	47	43	44	45	47	45	47	42	37	42	52	55	47	32	47	40	41	35	33	33	32	34	18	25	32	18	22			39.3	
Hamilton	Max.																																		
	Min.																																		
Humboldt	Max.	87	87	86	85	88	86	85	89	90	90	88	85	85	89	85	77	70	74	66	58	62	67	76	77	60	64	70	72	63	66			77.3	
	Min.	47	53	48	46	47	45	47	50	50	51	50	48	54	55	57	49	45	42	39	38	38	40	45	51	30	34	35	37	33			44.7		
Hawthorne	Max.	90	91	92	90	88	90	90	93	90	93	90	92	91	90	88	87	84	80	78	80	68	78	84	87	60	70	76	60	66				82.6	
	Min.	56	54	55	58	56	57	56	54	60	63	54	57	60	58	50	52	50	50	48	39	39	43	47	53	47	31	36	42	30	38			50.1	
Lewers' Ranch	Max.	92	90	91	91	92	95	93	94	93	94	90	90	92	90	89	86	80	76	68	58	70	78	80	78	68	70	76	67	69	76			81.8	
	Min.	48	52	51	52	51	52	53	53	54	55	54	55	54	46	48	44	47	47	47	35	34	38	42	54	30	31	35	30	29	33			45.2	
Lovelock	Max.	87	86	84	86	89	90	87	86	88	90	92	90	89	91	90	87	86	90	87	90	87	86	87	82	80	86	77	76	78	79			86.1	
	Min.	45	46	47	48	46	49	50	47	45	46	47	45	46	47	43	40	38	42	39	40	42	43	41	42	40	38	39	40	40	38			42.7	
Martin's Ranch	Max.	94	87	95	95	95	96	97	96	97	94	94	92	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94			84.2	
	Min.	40	47	49	45	45	43	46	48	44	43	44	44	49	43	39	37	36	45	41	37	30	32	37	50	42	23	27	37	23	25			39.8	
Monitor Mill	Max.	85	86	82	84	87	88	84	85	85	85	82	82	84	80	74	73	76	74	73	40	64	31	36	39	40	58	63	63	62	68			75.1	
	Min.	43	49	46	39	37	39	40	40	46	38	34	38	34	38	46	50	34	27	39	33	30	36	31	36	39	40	17	33	16	27	22		36.2	
Morey	Max.	92	90	91	92	94	95	96	91	91	89	84	92	90	90	88	80	81	77	76	66	69	80	82	81	66	79	62	70	79				82.4	
	Min.	54	52	55	56	58	52	54	56	54	56	49	52	52	57	51	47	42	46	42	31	36	41	46	43	33	29	36	42	30	33			46.3	
Palmetto	Max.	86	84	82	89	88	90	90	90	85	90	88	90	88	86	82	80	78	76	76	76	76	76	76	76	76	76	76	76	76	76			80.5	
	Min.	40	48	48	47	46	43	50	50	47	53	46	46	53	50	48	44	42	40	46	35	26	37	38	56	30	28	33	35	20	30			41.5	
Palisade	Max.	90	96	95	93	88	94	94	91	93	92	86	89	92	91	92	77	78	73	60	71	79	85	82	74	68	73	74	68	73	74				

TOTAL PRECIPITATION FOR SEPTEMBER, 1902



Day of Month.

T indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA:

STATE PRINTING OFFICE, - - - UNION-TRADE MARK - - - ANDREW MAUTE, SUPT.

1902

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR DECEMBER, 1902.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

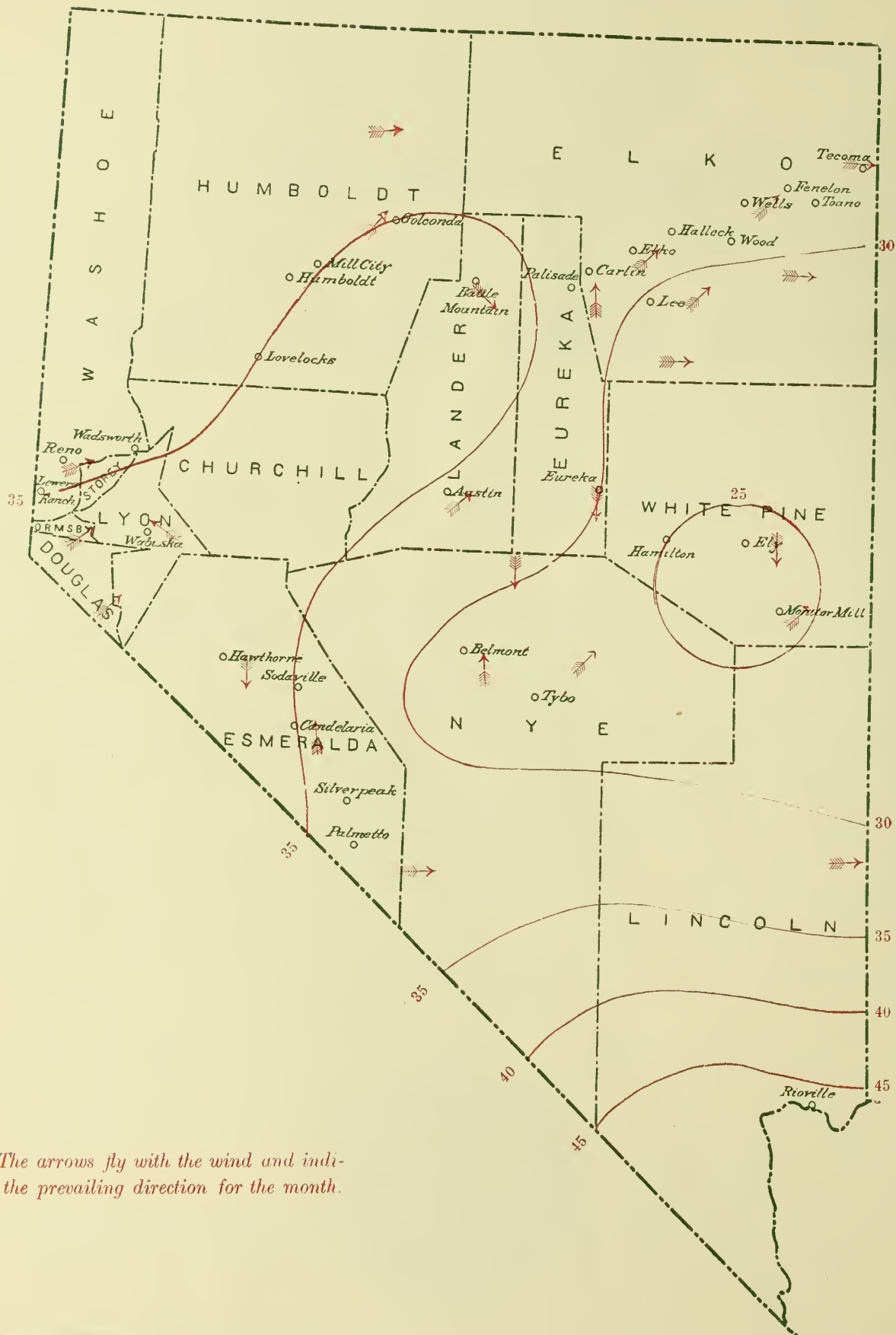
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR DECEMBER, 1902



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,
CARSON CITY, NEVADA.

VOL. XVI.

CARSON CITY, NEVADA.

No. 12.

SUMMARY OF WEATHER CONDITIONS.

The weather of the month was generally fair, slightly warmer and considerably drier than the average December. The highest temperature of the month occurred at most stations on the 24th, and lowest, on the 29th and 30th. The warmest part of the month was from the 23d to the 26th, and the coldest about the middle and close of the month.

The precipitation over the State was remarkably light, nearly an inch less than the December average. The last few days of the month were quite cold and very favorable for harvesting the ice crop.

Live stock interests were favorably affected by the mild character of the weather which prevailed throughout the greater part of the month.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada and, Modena, Utah, was 30.11 inches.

The highest pressure, 30.51 inches, was recorded at Modena (Utah) on the 21st, and the lowest, 29.69 inches, at Carson City, on the 10th.

The absolute range of pressure for the State was 0.52 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, determined from the reports of twenty-nine stations, was 33.7, or about 3.2 above normal.

By sections, the means were: Northern, 33.0; eastern, 26.2; central, 31.5; western, 36.8; southern, 34.3.

The highest monthly mean, 46.7, was recorded at Rioville, Lincoln county.

The lowest monthly mean, 26.2, was recorded at Ely, White Pine county.

The highest temperature recorded during the month was 78, at Martin's Ranch, Douglas county, on the 25th.

The lowest temperature recorded during the month was 2 below zero, at Potts, Nye county, on the 3d.

The absolute range of temperature for the State was 80. The greatest local daily range of temperature at stations equipped with self-registering thermometers was 58, at Palisade, on the 28th, and the least, 5, at Austin, Lander county, on the 5th.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 0.35 of an inch, or about 0.97 of an inch below normal, and 0.34 of an inch less than the average for the corresponding month of 1901.

By sections, the averages were as follows: Northern, 0.23 of an inch; eastern, 1.47 inches; central, 0.33 of an inch; western, 0.63 of an inch; southern, 0.16 of an inch.

The greatest monthly amount, 2.79 inches, was recorded at Lewers' Ranch, Washoe county, and the least, none, at several stations.

The greatest amount recorded in any twenty-four consecutive hours was 0.85 of an inch, at Lewers' Ranch, Washoe county, on the 5th.

Wind and Weather.

The prevailing direction of the wind was from the southwest.

The total movement of the wind at Carson City was 4,967 miles; Win-

nemucca, 3,907, and at Modena (Utah), 5,551 miles. The maximum velocity at Carson City was 44 miles per hour, from the southwest, on the 9th; Winnemucca, 52 miles per hour, from the west, on the 11th, and 28 miles per hour, from the west, at Modena (Utah), on the 1th.

The average number of clear days was 13, partly cloudy, 7; cloudy, 14; days with .01 of an inch or more of precipitation, 2.

Relative Humidity.

Carson City—8 a. m., 67 per cent; 8 p. m., 60 per cent; monthly mean, 61 per cent.

Winnemucca—8 a. m., 79 per cent; 8 p. m., 63 per cent; monthly mean, 71 per cent.

Modena (Utah)—8 a. m., 76 per cent; 8 p. m., 65 per cent; monthly mean, 70 per cent.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR DECEMBER DURING THE PAST FOURTEEN YEARS.

Year.	Temperature			Average precipitation, Inches and hundredths.
	Mean.	Highest.	Lowest.	
1889	34.4	70	-20	4.09
1890	35.1	73	-33	1.00
1891	26.3	66	0	2.75
1892	30.4	63	-23	1.23
1893	34.3	72	-15	0.69
1894	27.6	83	-12	2.50
1895	28.0	78	-34	0.42
1896	34.6	73	-10	0.40
1897	29.1	69	-14	0.31
1898	25.3	70	-15	0.48
1899	28.4	68	-25	1.15
1900	33.1	71	-12	0.19
1901	32.5	78	-19	0.69
1902	33.7	78	-2	0.35

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Solar Halos—Carson City, 7th.

Rainbows—Belmont, 5th.

Dense Fog—Palmetto, 11th, 18th; Wood, 18th, 19th; Belmont, 10th.

Sleet—Elko, 11th; Reno, 10th; Candelaria, 11th; Belmont, 11th.

High Winds—Lewers' Ranch, 5th; Carson City, 9th; Winnemucca, 11th; Potts, 26th; Reno, 5th, 9th, 10th, 25th; Eureka, 22d, 25th, 26th.

OBSERVERS' REMARKS.

Lee—The weather during the month has been quite cold, with but few storms. MISS JENNIE WILLIAMS.

Tecoma—Quite a number of bright sunny days. D. S. MORGAN.

Wood—Stock in fine condition. No snow on the ground in the valley and not much in the mountains. A. H. WISEMAN.

Lewers' Ranch—A cold and very dry month. Not much snow in the mountains. E. R. LEWERS.

Hawthorne—Very heavy wind storm all day on the 27th; otherwise an exceptionally fine month. T. G. WATERTON.

ERRATUM.

Golconda, November, 1902—Mean temperature, 36.8, should read 35.1.

Palisade, November, 1902—Mean temperature, 39.6, should read 39.3.

SNOWFALL IN THE MOUNTAINS.

The snowfall of November was quite heavy on the mountains throughout the eastern, central, western and southern sections of the State, but over the extreme northern portion it was light and below the average for the month. The snowstorms were accompanied by high winds and low temperatures, conditions which were very favorable for the packing and retention of the snow in the ravines and gulches until needed to furnish water for summer irrigation in the valleys below.

The December snowfall was very light all over the State, being considerably less than for the corresponding month of 1901, which was an unusually mild and dry winter month.

At the close of the month there was more snow on the mountains in the western part of the State than a year ago, while at the headwaters of the Humboldt river a large deficiency is reported. If average weather conditions prevail during the remainder of the winter the waterflow during the coming season will probably be greater than last year.

CORRESPONDENTS' REMARKS.

Humboldt Watershed.

BEOWAWE—Very little snow on the mountain peaks in this vicinity. Unless there is a large fall of snow between now and spring, or late spring rains, water will be scarce and feed short next summer for stock on the range.

E. F. WOLEVER.

WINNEMUCCA—There is more snow in the mountains in this section than at the same time last season; still the snowfall so far this season is less than half the normal.

J. C. HAYDEN.

REED'S STATION—The roads dry and dusty; very little snow in this section, only a few spots here and there. The outlook at present for water next summer is not very encouraging.

A. T. REED.

REBEL CREEK—The whole country is still very dry and needs rain badly. Wells are filling up very slowly and the water in creeks is away below normal.

R. McLERAN.

PARADISE—The first snow of the season occurred on December 31st, and averaged about two inches.

T. J. BRADSHAW.

LEE—So far the winter has been very mild. The snowfall has been very light and the weather has not been very cold.

JENNIE WILLIAMS.

PALISADE—We had pretty warm weather up to December 24th, but the last few days of the month were very cold. No snow in this vicinity to speak of.

J. A. FERRARO.

BULLION—Very light snowfall during the month, considerably less than normal.

F. J. FRANK.

FOLTZ—Very light snowfall during the month and much below the usual average for December. There is perhaps two or three inches in the mountains in this vicinity.

J. B. FOLTZ.

HUMBOLDT—The snowfall for December, 1902, was very light and considerably lower than for the same month of 1901, which was also a very dry month. There is about two feet of snow in the mountains near this place.

J. J. CULLEN.

WELLS—The depth of snow in the mountains in this vicinity is about the same as last year, which, however, was lighter than usual.

PHIL S. TRIPLETT.

Truckee Watershed and Lake Tahoe Drainage.

WADSWORTH—There is practically no snow in the mountains in this vicinity. This has been a very dry winter in this vicinity so far. There has been no snow or rain to amount to anything.

T. G. HERMAN.

TAHOE—The depth of the snow in the mountain ranges in this vicinity is about the same as last year. However, the snowfall is deficient and about two feet less than the average or usual amount for December.

J. U. HALEY.

GLENBROOK—The snowfall of the month is less than the average or usual amount for December. There have been several snowstorms, but

heavy rains on the 5th and 22d caused most of it to disappear, leaving the ground bare at the close of the month. The greatest depth of snow on the ground at any one time was seven inches.

A. C. McCLEARY.

LONGABAUGH'S WOOD CAMP (NEAR OPHIR)—There is now more snow in the mountains at this place than at the same time last year. The usual depth for December is from two to three feet. At the end of the month the depth of the snow on the ground was forty-four inches. On the summit there is very little snow, but near the summit the depth ranges from four to ten feet, according to locality.

JOHN FORSTER.

Walker River Watershed.

BRIDGEPORT—The snowfall of December varies greatly in this section, some seasons it falls from two to four feet in depth, while in others it averages from five to eight inches, and, like the current month, scarcely none at all.

MINNIE PIMENTEL.

WABUSKA—The snowfall of the month is about the average for December. The average depth of the snow in the mountains is about eighteen inches, which is a little more than at the same date last year.

J. G. YOUNG.

Reese River Watershed.

AUSTIN—The snowfall in the mountains is about the same as last year. The depth of the snow at or near the summit of the mountains is about twelve inches. No snow on the ground in the valley at the close of the month.

G. M. DYER.

Carson River Watershed.

CARSON CITY—Very light snowfall during the month. There was a heavy fall of snow on the mountains during the storms of November. More snow now in the mountains than at the end of December, 1901.

J. H. SMITH.

TABLE OF SNOWFALL.

Depth in Inches.

Station,	County.	Compared with average for December.	On ground in valley December 31st.	At or near summit of mountains.
<i>Humboldt Watershed:</i>				
Beowawe.....	Eureka.....	Less.....	None.....	3
Bullion.....	Elko.....	Less.....	None.....	15
Foltz.....	Humboldt.....	Less.....	None.....	2-3
Humboldt.....	Humboldt.....	Less.....	None.....	24
Lee.....	Elko.....	Less.....	½.....	6-9
Palisade.....	Eureka.....	Less.....	None.....	18
Paradise.....	Humboldt.....	Less.....	2.....	Trace
Reed's Station.....	Elko.....	Less.....	None.....	Trace
Rebel Creek.....	Humboldt.....	Less.....	None.....	12
Wells.....	Elko.....	Less.....	½.....	.....
Winnemucca.....	Humboldt.....	Less.....	None.....	48-72
<i>Truckee Watershed and Lake Tahoe Drainage:</i>				
Tahoe, Cal.....	Placer.....	Less.....	6.....	18
Wadsworth.....	Washoe.....	Less.....	None.....	Trace
Ophir (near).....	Washoe.....	Greater.....	44.....	48-120
Glenbrook.....	Douglas.....	Less.....	6.....	24
<i>Walker River Watershed:</i>				
Bridgeport, Cal.....	Mono.....	Greater.....	¼.....	72-84
Wabuska.....	Lyon.....	Average.....	None.....	18
<i>Reese River Watershed:</i>				
Austin.....	Lander.....	Less.....	None.....	12
<i>Carson River Watershed:</i>				
Carson City.....	Ormsby.....	Less.....	None.....	15

AVERAGE HOURLY WIND MOVEMENT FOR DECEMBER, 1902.

75th Meridian Time.

Station.	1 a.m.	2	3	4	5	6	7	8	9	10	11	12 noon	1 p.m.	2	3	4	5	6	7	8	9	10	11	12 midn't	For the month.
Carson City.....	5.9	6.3	6.6	6.3	5.9	6.5	6.2	6.3	6.0	6.5	6.5	5.9	5.6	6.9	7.2	7.7	9.0	8.7	8.1	7.1	6.6	6.6	5.9	5.8	6.7
Winnemucca.....	7.4	7.6	7.1	7.1	7.2	7.3	7.1	7.4	6.5	7.3	7.5	8.2	9.4	9.9	9.9	10.2	10.2	9.5	8.6	7.5	7.2	6.8	6.5	7.0	7.9
Modena (Utah).....	8.1	8.4	9.0	9.3	8.2	8.3	7.9	7.2	7.7	8.1	8.4	7.9	7.9	8.2	8.4	8.5	8.0	8.3	7.8	7.2	6.2	6.2	6.4	7.3	7.9

PREVAILING HOURLY WIND DIRECTION FOR DECEMBER, 1902.

Carson City.....	NW	NE	S	S	S	S	S	SW	S	SW	SW	S	S	S	E	E	E	E	E	E-S	SW	SW	N, S	S	S
------------------	----	----	---	---	---	---	---	----	---	----	----	---	---	---	---	---	---	---	---	-----	----	----	------	---	---

CLIMATOLOGICAL DATA FOR DECEMBER, 1902.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (inches).							Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (inches).	Number rainy days.	Number clear days.	Number partly cloudy days.			Number rainy days.
Northern Section.																				
Battle Mountain—1	Lander	4,511	32	31.2	+4.0	62	9	1	30	41	0.00	-0.87	0.00	0.0	0	12	0	19	SW	Agent So. Pacific Co.
Beowawe—3	Eureka	4,685	32	36.3	+6.6	68	4	1	31	—	0.20	-0.66	0.20	2.0	1	0	0	31	S	Agent So. Pacific Co.
Carlin—3	Elko	4,897	32	—	—	—	—	—	—	—	0.20	-1.17	0.20	0.0	1	17	0	14	SW	Agent So. Pacific Co.
Crane's Ranch†	Elko	5,350	15	—	—	—	—	—	—	—	0.16	-1.30	0.07	0.0	3	13	9	9	W	W. T. Crane
Elko—1	Elko	5,063	32	29.4	+3.7	52	24	-2	29	15	—	—	—	—	—	15	11	5	NE	C. H. Sproule
Fenelon—3	Elko	6,128	15	—	—	—	—	—	—	—	—	—	—	—	—	20	10	1	—	Agent So. Pacific Co.
Golconda—3	Humboldt	4,392	24	31.7	-0.3	55	4	10	29	—	—	—	—	—	—	13	4	14	—	Agent So. Pacific Co.
Halleck—3	Elko	5,229	30	28.8	+4.5	54	24	0	29	—	—	—	—	—	—	13	4	14	—	Agent So. Pacific Co.
Humboldt—1	Humboldt	4,236	31	33.9	+5.7	55	8	10	15	32	1	-0.59	1	0.0	0	20	0	11	S	Agent So. Pacific Co.
Lee	Elko	—	4	—	—	—	—	—	—	—	0.24	-0.99	0.17	3.0	3	20	6	5	SW	Miss Jennie Williams
Lovelock—1	Humboldt	3,977	11	36.2	+3.4	63	9	4	17	46	0.00	-0.20	0.00	0.0	0	15	0	16	—	Agent So. Pacific Co.
Mill City—3	Humboldt	4,225	11	37.3	+6.6	60	6	8	14	—	0.00	-0.93	0.00	0.0	0	13	0	18	—	Agent So. Pacific Co.
Owyhee—1	Elko	6,000	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Palisade—1	Eureka	4,821	21	33.4	+3.6	69	26	1	29	58	0.20	-1.06	0.20	2.0	1	29	0	2	—	Agent So. Pacific Co.
Quinn River Ranch—1	Humboldt	1,850	1	30.6	—	60	8	-0	19	51	0.10	—	0.30	0.7	3	10	2	19	W	F. M. Payne
Tecoma—1	Elko	4,812	25	—	—	—	—	—	—	—	T	-0.54	T	T	0	12	0	19	W	Agent So. Pacific Co.
Toano—3	Elko	5,975	34	—	—	—	—	—	—	—	0.64	-0.78	0.20	5.0	1	12	1	18	—	Agent So. Pacific Co.
Wells—3	Elko	5,623	31	29.8	+4.4	54	4	1	28	—	0.20	-1.13	0.20	2.0	1	22	0	9	SW	Agent So. Pacific Co.
Winnemucca—1	Humboldt	1,432	21	32.8	+1.7	62	25	2	30	38	0.08	-1.13	0.04	0.1	4	13	7	11	NE	U. S. Weather Bureau
Wood—1	Elko	6,000	3	29.7	—	59	24	3	4	42	1.75	—	0.80	—	9	7	13	11	—	A. H. Wiseman
Eastern Section.		Means	—	33.0	+4.0	—	—	—	—	—	0.23	-0.88	—	0.8	2	15	4	12	SW	—
Ely—2	White Pine	6,000	15	26.2	-1.8	50	25	0	2	38	1.47	-0.11	0.50	9.0	6	8	4	19	N	M. B. Garaghan
Hamilton—1	White Pine	7,977	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Mrs. J. F. Beck
Monitor Mill—1	White Pine	6,400	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Jas. B. Orr
Central Section.		Means	—	26.2	-1.8	—	—	—	—	—	1.47	—	—	9.0	6	8	4	19	SW	—
Austin—1	Lander	6,594	14	33.8	+3.8	57	26	11	16	36	0.39	-1.24	0.39	0.0	1	—	—	—	—	G. M. Dyer
Eureka—1	Eureka	6,990	—	30.7	—	53	8	7	3	34	0.30	—	0.30	T	1	8	11	12	N	D. M. Broy
Potts—1	Nye	6,826	10	30.0	+4.4	52	21	-2	3	45	0.27	-0.35	0.20	1.0	3	4	13	14	N	Miss Bessie Potts
Western Section.		Means	—	31.5	+4.1	—	—	—	—	—	0.33	-0.80	—	0.3	2	6	12	13	N	—
Carson City—2	Ormsby	4,660	23	36.9	+2.7	68	24	11	14	45	0.61	-1.58	0.34	T	4	14	14	3	SW	C. W. Friend
Carson City (W. B.)—1	Ormsby	4,720	13	36.8	+2.6	67	24	11	29	42	0.45	-1.74	0.24	T	4	12	13	6	S	U. S. Weather Bureau
Hot Springs—3	Churchill	4,072	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Agent So. Pacific Co.
Lewers' Ranch†—1	Washoe	5,200	15	37.2	+3.4	63	24	13	15	37	2.79	-1.34	0.85	2.0	7	11	14	6	SW	E. R. Lewers
Martin's Ranch‡—2	Douglas	4,830	4	38.4	+4.2	78	25	9	18	46	0.22	-1.97	0.12	0.0	2	22	6	3	SW	Mrs. J. H. Martin
Reno—1	Washoe	4,484	32	36.4	+3.5	68	25	12	30	42	0.20	-0.71	0.08	T	3	14	14	3	SW	State University
Verdi—3	Washoe	4,895	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Agent So. Pacific Co.
Wabuska—1	Lyon	4,347	—	—	—	65	25	—	—	—	0.00	—	0.00	0.0	0	9	4	18	SE	J. H. Harcourt
Wadsworth—1	Washoe	4,077	31	35.0	+0.4	67	27	4	30	45	0.15	-0.39	0.15	0.0	1	—	—	—	W	Agent So. Pacific Co.
Southern Section.		Means	—	36.8	+2.8	—	—	—	—	—	0.63	-1.29	—	0.3	3	14	11	6	SW	—
Belmont—1	Nye	8,132	11	27.3	+4.7	46	24	9	2	27	0.10	-1.92	0.07	1.0	2	8	6	17	SW	W. N. Granger
Butler (Tonopah)—1	Nye	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Al. E. Rule
Candelaria—2	Esmeralda	5,783	13	35.3	+3.6	58	5	17	14	29	T	-0.37	T	T	0	9	9	9	S	A. G. Draper
Hawthorne—1	Esmeralda	4,569	15	36.8	+0.1	68	8	15	15	36	0.00	-0.57	0.00	0.0	0	13	2	16	N	T. G. Watterson
Morey—1	Nye	7,384	—	29.8	—	55	4	7	3	40	0.35	—	0.25	3.0	2	10	21	0	S	Jas. B. Gilmore
Palmetto—2	Esmeralda	6,500	13	30.8	+0.3	57	23	5	3	41	0.20	-1.27	0.20	2.0	1	18	11	2	W	Wm. Oothout, Jr.
Rioville—1	Lincoln	—	—	46.7	—	76	28	21	31	39	0.44	—	0.24	0.0	2	—	—	—	—	Daniel Bonelli
Silver Peak—2	Esmeralda	4,382	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	H. Latter
Sodaville—1	Esmeralda	4,665	4	33.6	—	62	26	8	28	33	T	—	T	T	0	13	15	3	S	Agent So. Pacific Co.
Means		—	—	34.3	+2.2	—	—	—	—	—	0.16	-1.03	—	0.9	1	12	11	8	S	—
State Means		—	—	33.7	+3.2	—	—	—	—	—	0.35	-0.97	—	0.9	2	13	7	11	SW	State Means
Miscellaneous.																				
Modena (Utah)—1	Iron	5,479	—	30.0	—	56	8	2	21	34	0.29	—	0.18	4.1	5	16	11	4	W	U. S. Weather Bureau
—																				
—																				
—																				
—																				

REFERENCES: 1, Weather Bureau maximum and minimum thermometers in use; 2, self-registering maximum and minimum thermometers, not Weather Bureau, in use; 3, means and extremes of temperature from observations by ordinary thermometers at 7 a. m., 2 p. m. and 9 p. m. A small letter placed before the name of a station or against the data in the body of the form, indicates the number of days missing from the record, for instance, "n" denotes 14 days missing. *Italic figures* indicate that the maximum or minimum occurred on several dates. T indicates trace of precipitation. All records are used in determining State and district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

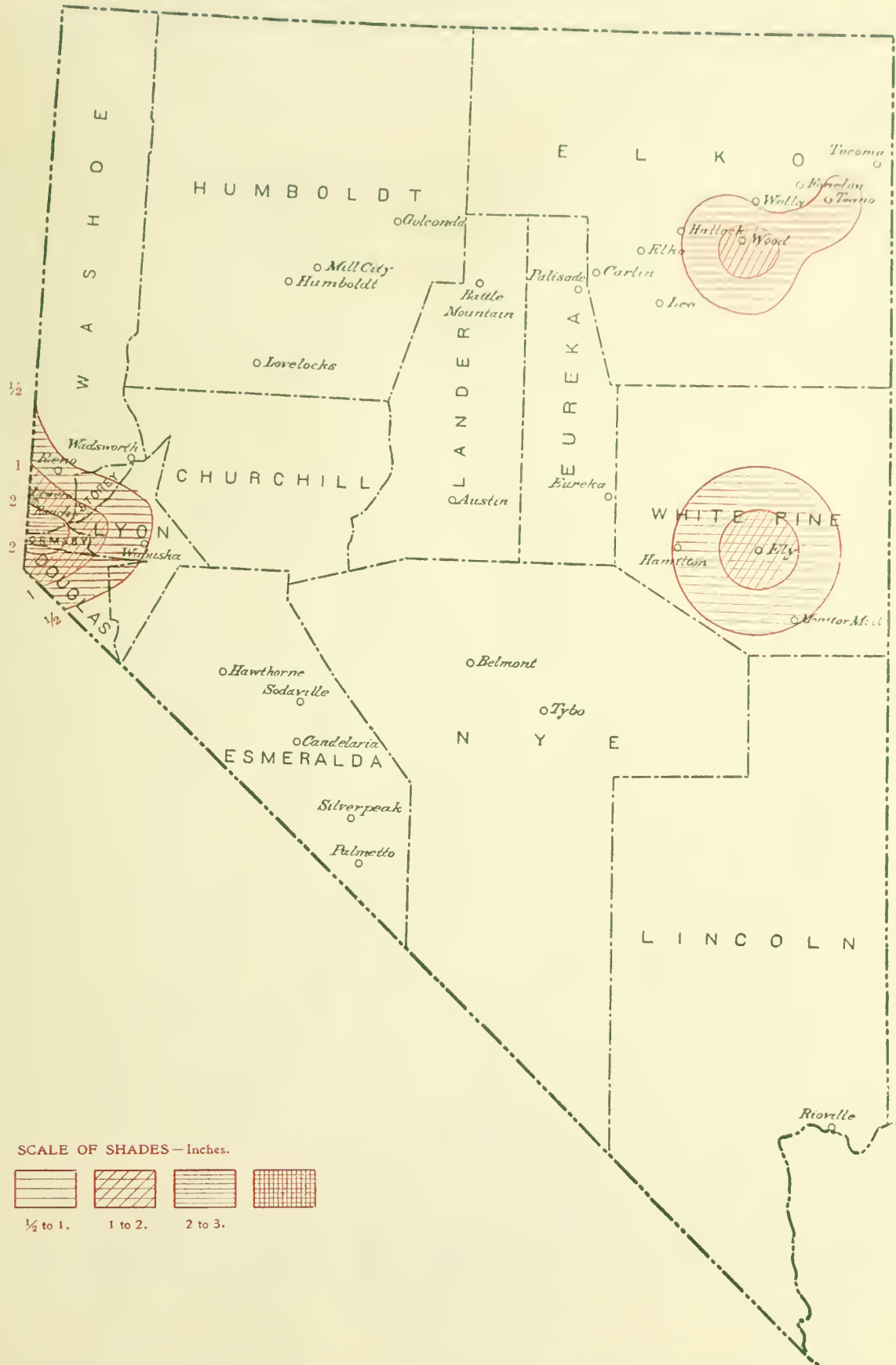
* Not considered in computing State or district means.

† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. || Postoffice—Elko. ¶ Postoffice—Amos.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR DECEMBER, 1902.

Stations.		Day of Month.																															Monthly means.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Austin	Max.	43	37	48	48	40	42	50	52	47	46	46	42	35	24	28	32	32	29	33	38	49	53	55	52	54	57	51	48	44	39	40	43.4	
	Min.	16	12	12	15	35	22	34	34	37	36	35	27	14	13	12	11	18	15	14	28	34	34	35	33	32	35	32	19	12	19	21	24.1	
Battle Mountain	Max.	56	60	35	58	55	54	60	58	62	54	56	48	48	45	48	48	40	45	41	38	8	6	20	28	28	28	18	2	8	1	6	50.4	
	Min.	26	28	10	30	45	20	38	34	32	28	20	10	12	9	8	8	15	9	6	6	37	37	37	45	45	40	34	26	32	35	37	18.1	
Belmont	Max.	42	25	35	43	42	39	41	44	41	40	37	27	24	25	27	28	33	32	21	37	23	25	31	27	26	17	9	9	12	15	28	35.4	
	Min.	15	9	16	31	21	26	28	32	27	28	16	11	12	11	15	18	17	11	12	17	23	25	31	27	26	17	9	9	12	15	28	19.2	
Butler (Tonopah)	Max.																																	
	Min.																																	
Candelaria	Max.	50	42	33	52	38	33	48	45	50	48	39	35	38	32	32	33	32	35	38	42	43	41	50	50	49			48	40			43.3	
	Min.	28	27	18	23	39	33	32	32	33	31	32	25	18	17	19	24	23	22	22	24	24	29	27	37	33			19	18			26.3	
Carlin*	Max.																																	
	Min.																																	
Carson City	Max.	57	43	53	57	56	56	61	65	58	49	45	42	38	41	31	39	38	41	44	50	45	59	62	67	56	44	39	40	44	48	49.6		
	Min.	32	24	16	45	43	36	37	27	37	40	33	23	14	11	12	22	11	22	11	19	12	14	37	32	25	35	26	15	11	11	16	24.2	
Carson City (W. B.)	Max.	54	41	53	55	54	55	59	63	57	48	44	41	35	37	30	37	38	41	43	48	44	58	60	67	65	57	42	35	37	43	48	48.0	
	Min.	36	25	17	46	42	36	44	35	42	39	32	25	15	15	12	21	12	22	13	19	14	16	40	33	30	34	27	15	11	12	17	25.7	
Elko	Max.	50	48	50	45	50	45	46	47	46	47	42	40	40	38	37	35	35	37	35	38	45	52	46	43	40	38	40	40	38	40	42.2		
	Min.	20	19	5	20	38	20	22	34	33	36	27	20	10	7	5	10	12	10	13	15	6	14	22	20	25	22	22	2	0	4	4	16.5	
Ely	Max.	35	36	31	45	35	41	45	49	45	43	42	43	25	33	28	31	25	25	32	35	42	48	49	50	49	43	34	30	38	39	38.4		
	Min.	10	0	8	26	22	18	25	28	30	15	12	5	0	3	5	6	8	5	10	8	11	23	29	25	28	23	26	5	4	5	12	14.1	
Eureka	Max.	48	38	30	50	42	46	51	53	44	45	43	36	33	34	33	32	33	32	41	41	42	51	53	50	51	42	32	33	37	43	41.1		
	Min.	23	15	7	19	32	31	30	19	21	30	31	17	9	11	10	19	17	12	15	19	20	19	33	32	37	36	18	10	9	9	20	20.3	
Halleck*	Max.	42	40	40	44	40	42	48	46	44	46	42	36	32	32	30	32	36	36	40	43	32	40	50	54	50	54	32	32	32	30	36	39.8	
	Min.	32	24	6	32	28	18	40	36	32	35	18	8	3	4	3	8	18	6	8	22	8	3	38	45	20	21	26	3	0	0	5	17.7	
Hamilton	Max.																																	
	Min.																																	
Humboldt	Max.	45	47	46	54	50	48	50	55	55	54	55	50	47	38	36	34	33	35	43	40	37	55	50	47	53	55	40	35	37	33	50	45.4	
	Min.	20	18	16	30	28	26	25	30	35	35	30	25	15	15	10	20	15	18	20	15	19	35	30	25	27	32	20	17	13	10	20	22.4	
Hawthorne	Max.	48	58	40	48	62	60	89	68	60	62	60	65	40	38	38	40	40	36	38	40	47	52	57	65	65	50	46	47	38	44	48	49.8	
	Min.	25	24	19	20	24	29	35	31	32	38	23	18	23	15	18	17	15	15	16	17	25	33	34	30	38	26	19	15	15	15	15	23.8	
Lewers' Ranch	Max.	52	45	56	51	50	53	55	61	59	50	40	45	38	38	39	38	39	39	37	47	45	53	57	63	63	55	40	34	38	38	48	47.3	
	Min.	36	22	19	40	40	33	42	36	41	37	22	14	14	13	22	23	16	16	18	26	44	45	53	44	43	37	34	21	16	14	14	37	27.2
Lovelock	Max.	54	56	58	57	59	60	58	62	63	61	60	57	60	52	50	50	46	47	48	51	47	52	42	50	47	56	51	50	42	41	39	52.5	
	Min.	30	29	32	34	32	30	29	31	35	32	29	28	29	14	8	6	4	5	4	5	6	17	20	31	17	18	19	16	5	11	12	4	6	20.0
Martin's Ranch	Max.	59	53	55	60	56	59	64	70	63	54	46	46	43	43	31	43	43	44	45	52	50	61	67	70	78	60	50	43	42	47	50	53.1	
	Min.	29	19	17	42	43	25	48	30	45	42	34	21	14	11	12	20	10	9	12	15	12	15	44	28	35	36	19	12	10	9	14	23.6	
Monitor Mill	Max.																																	
	Min.																																	
Morey	Max.	48	38	32	55	48	45	46	45	45	44	45	44	35	32	31	36	37	34	37	38	45	44	39	53	47	48	47	35	40	40	42	41.5	
	Min.	19	18	7	15	25	22	26	25	27	26	13	12	15	8	13	14	15	10	17	18	17	21	32	27	24	20	12	10	14	15	15	18.2	
Palmetto	Max.	52	35	36	55	55	50	48	46	46	45	35	31	35	37	36	34	34	42	44	48	50	57	55	56	56	38	38	40	45	47	44.3		
	Min.	20	18	5	14	30	25	24	22	28	32	31	20	13	9	8	14	10	16	7	14	15	22	32	24	22	14	5	5	6	10	17.3		
Palisade	Max.	54	40	49	53	51	49	55	57	55	52	44	42	34	36	35	36	37	42	45	43	45	56	61	68	69	50	60	40	40	47	48.4		
	Min.	16	22	14	11	36	25	30	22	37	36	31	12	11	8	20	6	19	9	13	17	8	16	32	23	30	25	5	2	1	4	29	18.4	
Potts	Max.	41	40	38	48	49	41	44	46	50	45	46	41	40	38	37	40	44	48	50	52	42	44	40	38	40	40	40	40	40	40	40	42.9	
	Min.	1	1	2	10	22	20	26	27																									

TOTAL PRECIPITATION FOR DECEMBER, 1902



Day of Month.

T indicates trace. * Precipitation included in that of following day.

STATE PRINTING OFFICE, - - - ANDREW MAUTE, SUPT.

1903

551.05
UNNE

U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR JANUARY, 1903.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

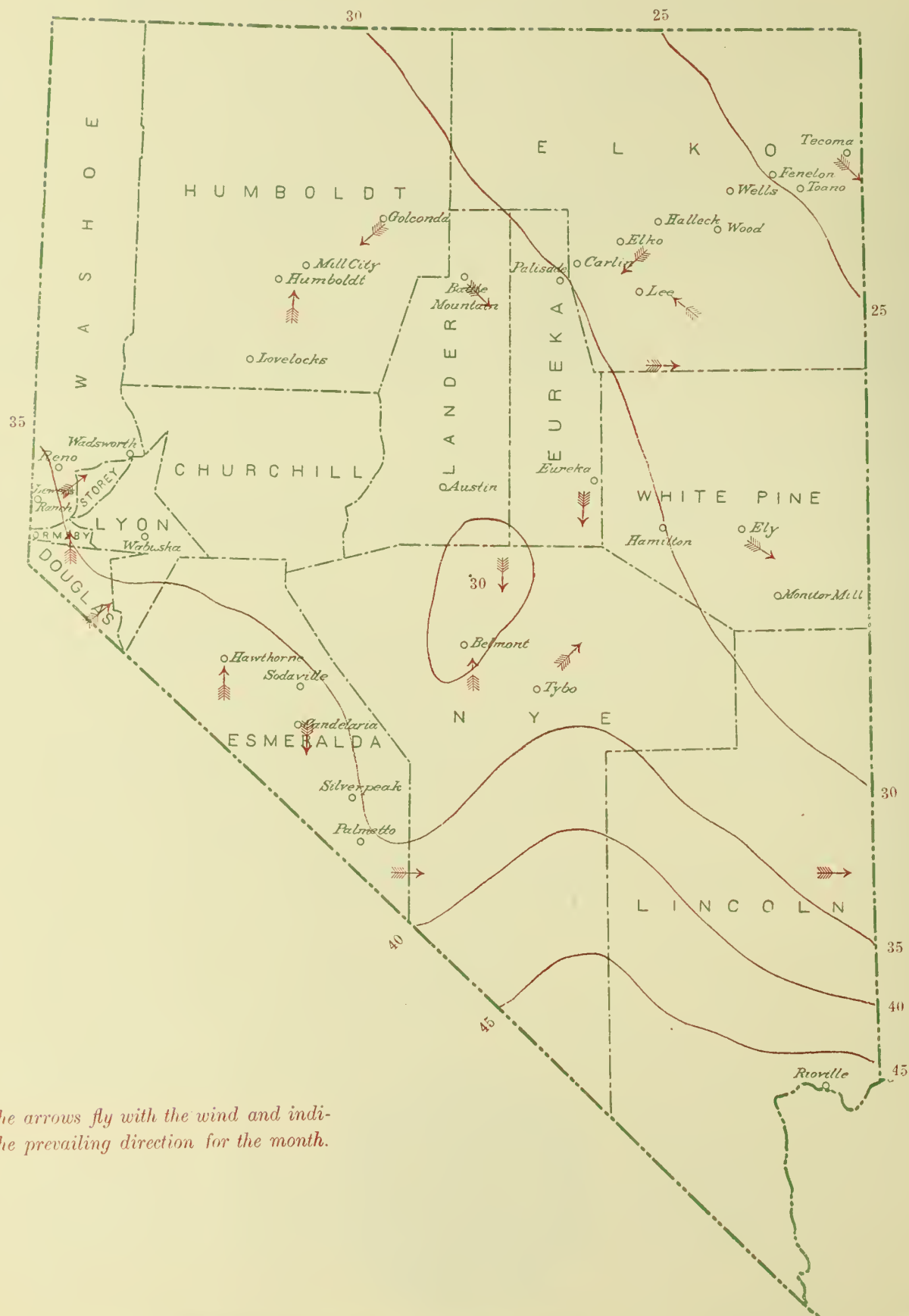
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR JANUARY, 1903



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director.

CARSON CITY, NEVADA.

VOL. XVII.

CARSON CITY, NEVADA

No. 1.

SUMMARY OF WEATHER CONDITIONS.

Clear and milder weather than usual for January prevailed in Nevada during the first and second decades of the month. The last decade, however, was rather cold, stormy and disagreeable, with high winds and heavy precipitation on the 26th, 27th and 28th.

Nearly all voluntary observers reported an excess of temperature for the month, ranging from 2 to 7 degrees above the normal of their respective stations. The precipitation was heavier than usual for January and fairly well distributed over the State, the heaviest amounts being recorded in Elko and Washoe counties.

The snowfall during the latter part of the month was the heaviest since 1890.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 30.14 inches.

The highest pressure, 30.60 inches, was recorded at Winnemucca, on the 5th, and the lowest, 29.42 inches, at Carson City, on the 27th.

The absolute range of pressure for the State was 1.18 inches.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the reports of thirty-one stations, was 32.0, or about 5 degrees above normal, and nearly 4 degrees higher than the mean for the corresponding month of 1902.

By sections, the means were: Northern, 29.9; eastern, 28.2; central, 30.5; western, 34.3; southern, 36.6.

The highest monthly mean, 47.1, was recorded at Rioville, Lincoln county.

The lowest monthly mean, 24.2, was recorded at Toano, Elko county.

The highest temperature recorded during the month was 72, at Rioville, Lincoln county, on the 26th.

The lowest temperature recorded during the month was 16 below zero, at Potts, Nye county, on the 29th.

The absolute range of temperature for the State was 88. The greatest local daily range of temperature at stations equipped with self-registering thermometers was 56, at Potts, Nye county, on the 29th, and the least, 5, at Belmont, Nye county, on the 5th.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 1.81 inches, which is 0.68 of an inch above normal, and 1.30 inches in excess of the average for the corresponding month of 1902.

By sections, the averages were as follows: Northern, 1.92 inches; eastern, 0.75 of an inch; central, 1.21 inches; western, 3.38 inches; southern, 0.86 of an inch.

The greatest monthly amount, 7.40 inches, was recorded at Lewers' Ranch, Washoe county, and the least, 0.11 of an inch, at Rioville, Lincoln county.

The greatest amount recorded in any twenty-four consecutive hours, was 3.12 inches, at Lewers' Ranch, on the 27th.

Wind and Weather.

The prevailing direction of the wind was from the southwest.

The total movement of the wind at Carson City was 4,928 miles; Win-

nemucca, 6,789 miles; Modena (Utah), 6,719 miles. The maximum velocity at Carson City was 63 miles per hour, from the southwest, on the 26th. Winnemucca, 64 miles per hour, from the southwest, on the 26th, and 14 miles per hour, from the south, at Modena (Utah), on the 24th.

The average number of clear days was 16, partly cloudy, 7, cloudy, 19, days with .01 of an inch or more of precipitation, 3.

Relative Humidity.

Carson City—8 a. m., 73 per cent; 8 p. m., 64 per cent; monthly mean, 68 per cent.

Winnemucca—8 a. m., 86 per cent; 8 p. m., 66 per cent; monthly mean, 76 per cent.

Modena (Utah)—8 a. m., 75 per cent; 8 p. m., 54 per cent; monthly mean, 64 per cent.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR JANUARY DURING THE PAST FOURTEEN YEARS.

Year.	Mean.	Temperature Highest.	Lowest.	Average precipitation, Inches and hundredths.
1890.....	20.4	52	—42	3.81
1891.....	27.6	68	—25	0.21
1892.....	26.7	73	—25	0.53
1893.....	30.4	63	—23	1.23
1894.....	28.0	70	—30	1.42
1895.....	25.9	60	—30	2.42
1896.....	33.9	79	—26	1.80
1897.....	30.2	65	—12	0.92
1898.....	20.4	63	—28	0.69
1899.....	31.8	65	—12	1.20
1900.....	35.7	71	—10	0.42
1901.....	30.1	75	—19	1.51
1902.....	28.4	69	—32	0.54
1903.....	32.0	72	—16	1.81

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Thunderstorms—Lee, 21st.

Earthquake Shock—Palmetto, 14th.

Solar Halos—Carson City, 2d, 3d, 4th.

Lunar Halos—Carson City, 4th, 7th; Reno, 4th.

Dense Fog—Palmetto, 28th, 31st.

Light Fog—Reno, 19th; Halleck, 5th.

Sleet—Reno, 27th; Lee, 21st, 23d, 25th.

High Winds—Eureka, 26th; Hawthorne, 26th; Reno, 26th; Mill City, 26th; Winnemucca, 26th; Potts, 26th, 27th, 30th; Palmetto, 19th, 26th, 27th; Carson City, 22d, 24th, 25th, 26th, 27th; Lewers' Ranch, 22d, 23d, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st.

OBSERVERS' REMARKS.

Palmetto—At the end of the month the depth of snow on the mountains averaged 28 inches. WM. OOTHOUT, JR.

Lewers' Ranch—The snowfall during the last week of the month gives promise of plenty of water for irrigation next summer. E. R. LEWERS.

Tecoma—At the end of the month there was about 6 inches of snow in the valley and from 18 inches to 2 feet on the mountain. D. S. MORGAN.

Lee—The weather was fine up to the 19th; since then it has been very cold and a large amount of precipitation has fallen. JENNIE WILLIAMS.

Hawthorne—Very heavy gale all day from the south on the 26th. The velocity of the wind was sufficient to wreck the north-bound train on the Carson and Colorado Railroad, blowing three box cars from the track while the train was in motion. T. G. WATTERSON.

Reno—Very heavy storm, preceded by very high wind, began on the 24th and continued on to the end of the month. The wind on the 24th blew at the rate of 60 miles per hour. Barometer extremely low at the end of the month, indicating a continuation of the storm.

ALFRED DOTEN.

SNOWFALL IN THE MOUNTAINS.

The weather in Nevada during the first and second decades of January was comparatively mild and very much dryer than usual. The last decade, however, was quite stormy, with heavy precipitation in the valleys

and mountain ranges. The snowstorms on the 26th, 27th and 28th were the best and heaviest in the past twelve years.

Reports indicate that the stock of snow now in the mountains over the watersheds of the State is amply sufficient to maintain a normal flow of water next summer without further precipitation during the remainder of the winter. Stockmen and ranchers are correspondingly happy over the fine prospects for a good crop season.

CORRESPONDENTS' REMARKS.

Humboldt Watershed.

Battle Mountain—There is considerably more snow in the mountains than at same time last year. J. J. REEVE, JR.

Beowawe—More snow than last year at this time. E. F. WOLEVER.

Palisade—Snowfall about the same as last year. J. A. FERRARO.

Bullion—More snow than usual amount for January. F. J. FRANK.

Winnemucca—There is about three times as much snow in the mountain ranges as there was at this date last year. J. C. HAYDEN.

Wells—More snow than any January in several years. PHIL S. TRIPLETT.

Foltz—The snow in the mountain ranges is about a fair average for January. J. B. FOLTZ.

Humboldt—Heavy snowstorm on the 17th—fall of fourteen inches on the level. J. J. CULLEN.

Golconda—More snow this year than last year. L. L. MUSHETT.

Huntington—Less than the average amount for January. A. W. BROWNE.

Lee—The snowfall is about the same as last year. JENNIE WILLIAMS.

Rebel Creek—More snow than for the last three years. R. McLERAN.

Paradise—The snowfall is about the average for January. T. J. BRADSHAW.

Lamoille—More snow in the mountains than at corresponding date last year. G. M. BOWER.

Unionville—The amount of snow in this vicinity is about the average for January. POSTMASTER.

Truckee Watershed and Lake Tahoe Drainage.

Wadsworth—There is more snow now than at this time last year. T. G. HERMAN.

Verdi—More snow than we have had for any January in the past eight or ten years. C. LONKEY.

Reno—The season's snowfall to date is almost one and a half times as much as last. ALFRED DOTEN.

Longabaugh's Wood Camp (near Ophir)—There is a great deal more snow in the mountains at this place than at the same time last year. JOHN FOSTER.

Tahoe—The season's snowfall in the mountain ranges in this vicinity is greatly in excess as compared with the corresponding date last year. J. U. HALEY.

Boca—More snow than last year. POSTMASTER.

Glenbrook—The snow is greater than last year at this time. A. C. McCLEARY.

Donner—Snowfall is the same as last year. POSTMASTER.

Walker River Watershed.

Smith—The snowfall in the mountains is much heavier than this time last year. C. M. CARTER.

Bridgeport—The snowfall is about one-third greater than it was at this time last year. MRS. MINNIE PIMENTEL.

Wellington—More snow in the mountain ranges than at this time last year. POSTMASTER.

Wabuska—The snowfall is a little above the January average. J. G. YOUNG.

Reese River Watershed.

Berlin—The snowfall up to date is about the same as last year. THOMAS J. JONES.

Spencer—The snowfall is very much the same as last year at this time. S. E. SPENCER.

Austin—The snowfall is a little more than at this time last year. G. M. DYER.

Galena—More snow in the mountains than at this time last year. POSTMASTER.

Eureka—There is about twice as much snow in the mountains as there was last year at the end of January. POSTMASTER.

Dean—Outlook for water the coming season is very bright. POSTMASTER.

Carson River Watershed.

Genoa—More snow now than at this time last year. POSTMASTER.

Sheridan—There is more snow in the mountains than at this time last year. POSTMASTER.

Virginia City—The snow is greatly in excess of the usual amount for January. POSTMASTER.

Dayton—The depth of snow in the mountains is about the same as last year at this time. T. P. MACK.

Carson City—More snow in the mountain ranges now than for several years past at this time. J. H. SMITH.

TABLE OF SNOWFALL.

Depth in Inches.

Station,	County.	Compared with average for January.	On ground at stations January 31st.	At or near summit of mountains.
Humboldt Watershed:				
Battle Mountain	Lander	Greater	3	18
Beowawe	Eureka	Greater	3	12
Bullion	Elko	Greater	18	60
Foltz	Humboldt	Average	7	36
Golconda	Elko	Greater	12	36
Humboldt	Humboldt	Greater	4	48
Huntington	Elko	Less	4	24-60
Lee	Elko	Average	10	24-36
Lamoille	Elko	Greater	18	48
Palisade	Eureka	Greater	7	36-48
Paradise	Humboldt	Average	12	-----
Rebel Creek	Humboldt	Greater	10	12-14
Unionville	Humboldt	Greater	120	-----
Wells	Elko	Greater	12	-----
Winnemucca	Humboldt	Greater	10	18
Truckee Watershed and Lake Tahoe Drainage:				
Boca, Cal.	Nevada	Greater	36	-----
Donner, Cal.	Placer	Average	84	133
Glenbrook	Douglas	Greater	36	72
Reno	Washoe	Greater	8	100-130
Tahoe, Cal.	Placer	Greater	72	96
Verdi	Washoe	Greater	18	48
Wadsworth	Washoe	Greater	5	42
Ophir (near)	Washoe	Greater	80	-----
Walker River Watershed:				
Smith	Lyon	Greater	11	-----
Bridgeport, Cal.	Mono	Greater	15	84-144
Wellington	Lyon	Greater	3	36
Wabuska	Lyon	Greater	2	48
Carson River Watershed:				
Carson City	Ormsby	Greater	5	48-72
Dayton	Lyon	Average	4	12
Genoa	Douglas	Greater	18	60
Sheridan	Douglas	Greater	14	-----
Virginia City	Storey	Greater	36	-----
Reese River Watershed:				
Austin	Lander	Greater	12	24-36
Dean	Lander	Greater	36	36-48
Galena	Lander	Greater	12	24-36
Spencer	Lander	Greater	6	18
Berlin	Nye	Less	12	36

AVERAGE HOURLY WIND MOVEMENT FOR JANUARY, 1903.

75th Meridian Time.

Station.	1 a.m.	2	3	4	5	6	7	8	9	10	11	12 noon	1 p.m.	2	3	4	5	6	7	8	9	10	11	12 midn't	For the month.
Carson City	6.5	7.0	7.1	6.3	6.0	6.0	5.6	6.1	5.9	6.0	7.1	6.2	6.2	6.4	6.4	6.8	7.2	7.2	7.2	7.5	7.2	7.2	7.5	6.5	6.6
Winnemucca	8.7	8.8	8.7	8.4	8.6	9.3	8.4	7.5	7.1	8.4	8.7	8.9	9.4	9.6	9.4	10.9	10.6	10.6	11.1	9.9	9.0	8.8	9.1	9.2	9.1
Modena (Italian)	7.1	7.6	8.3	8.9	8.9	8.5	8.5	8.3	7.8	8.1	7.9	8.6	10.7	10.9	11.6	11.1	10.9	11.4	10.5	8.4	8.6	8.5	7.4	7.5	9.0

PREVAILING HOURLY WIND DIRECTION FOR JANUARY, 1903.

Carson City	S	SE	SE	S	S	S	S	S	S	SW	S	S	S	S	SE	SE	E	NW	SW	NW	SW	SW	SW	S
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CLIMATOLOGICAL DATA FOR JANUARY, 1903.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit)						Precipitation (Inches).				Sky.				Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.			Number cloudy days.
Northern Section.																				
Battle Mountain—1	Lander	4,511	33	34.7	+7.3	60	7	0	17	53	4.35	+0.43	0.70	9.0	3	20	0	11	NW	Agent So. Pacific Co.
Beowawe—3	Eureka	4,695	33			60	7	4	29		1.37	+0.55	0.45	6.0	6	19	1	11	S	Agent So. Pacific Co.
Carlin—3	Elko	4,897	33	29.1		44	1	0	29		1.55	+0.43	0.80	14.0	7	20	0	11	SW	Agent So. Pacific Co.
Crane's Ranch†	Elko	5,350	16								1.91	+0.92	0.58		9	17	1	13	W	W. T. Crane
Elko—1	Elko	5,063	33	27.4	+6.1	47	23	-3	18	44				3.0		8	7	16	NE	C. H. Sproule
Fenelon—3	Elko	6,128	16	26.5		45	8	4	29											Agent So. Pacific Co.
Golconda—3	Humboldt	4,392	25	31.0	+0.9	52	23	9	15		1.70	+1.08	0.80	18.5	5	13	4	14		Agent So. Pacific Co.
Halleck—3	Elko	5,229	31	28.6	+7.0	58	23	0	14		1.95	+0.91	0.90	46.5	5	14	3	14		Agent So. Pacific Co.
Humboldt—1	Humboldt	4,236	32	33.0	+3.1	61	24	7	15	38	1.72	+0.91	1.72	14.0	1	16	1	14	S	Agent So. Pacific Co.
Lee	Elko		5								4.07	+3.09	1.01	18.0	13	15	1	15	SE	Miss Jennie Williams
Lovelock—1	Humboldt	3,977	12	34.2	+2.5	52	3	2	17	47	0.50	-0.00	0.30	5.0	2	19	0	12		Agent So. Pacific Co.
Mill City—3	Humboldt	4,225	15	34.0	+6.8	63	6	7	29						4					Agent So. Pacific Co.
Palisade—1	Eureka	4,821	22	30.2	+6.5	59	26	-2	29	46	1.69	+0.55	0.86	7.0	2	24	0	7		Agent So. Pacific Co.
Quinn River Ranch‡—1	Humboldt	4,850	2																	F. M. Payne
Tecoma—1	Elko	4,812	26	28.6	+7.9	50	4	0	29	41	0.77	+0.21	0.76	6.0	2	9	0	22	NW	Agent So. Pacific Co.
Toano—3	Elko	5,975	34	24.2	+3.1	46	25	0	17		2.68	+0.81	1.74	11.5	5	15	0	16	SW	Agent So. Pacific Co.
Wells—3	Elko	5,623	32	27.3	+5.8	51	19	1	29		2.00	+0.52	1.00	16.0	3	19	0	12		Agent So. Pacific Co.
Winnemucca—1	Humboldt	4,432	25	30.6	+3.6	59	24	-4	29	40	1.78	+0.67	1.34	12.5	10	13	7	11	NE	U. S. Weather Bureau
Wood—1	Elko	6,000	4	28.5		53	4	1	16	40	3.77		1.07	7.0	10	11	7	13	SW	A. H. Wiseman
Means				29.9	+5.0						1.92	+0.79		10.9	5	16	2	13	SW	
Eastern Section.																				
Ely—2	White Pine	6,000	16	28.2	+6.1	54	7	-13	29	37	0.75	-0.38	0.70	7.0	2	18	0	13	NW	M. B. Garaghan
Hamilton—1	White Pine	7,977	3																	Mrs. J. F. Beck
Monitor Mill||—1	White Pine	6,400	5																	Jas. B. Orr
Means																				
Central Section.																				
Austin—1	Lander	6,594	15	31.8	+5.2	54	6	2	29	29	1.80	+0.39	1.50	15.0	2	13				G. M. Dyer
Eureka—1	Eureka	6,990	1	31.5		59	6	0	29	36	1.00		0.70	10.0	2	13	5	13	N	D. M. Broy
Potts—1	Nye	6,826	11	28.3	+4.1	55	8	-16	29	56	0.84	+0.06	0.80	8.5	3	8	8	15	N	Miss Bessie Potts
Means				30.5	+4.6						1.21	+0.22		11.2	3	11	6	14	N	
Western Section.																				
Carson City—2	Ormsby	4,660	24	34.3	+2.0	60	3	-6	29	43	2.86	+0.30	1.53	11.8	9	16	12	3	S	C. W. Friend
Carson City (W. B.)—1	Ormsby	4,720	14	31.5	+2.2	60	3	-3	29	40	2.17	-0.39	1.17	12.2	6	15	5	11	S	U. S. Weather Bureau
Hot Springs—3	Churchill	4,072	16																	Agent So. Pacific Co.
Lewers' Ranch‡—1	Washoe	5,200	16	37.2	+6.0	59	3	3	29	34	7.40	+3.22	3.12	31.0	9	16	8	7	SW	E. R. Lewers
Martin's Ranch‡—2	Douglas	4,830	5	36.1	+3.8	66	3	-8	29	50	2.23	-0.33	1.15	8.0	3	23	3	5	SW	Mrs. J. H. Martin
Reno—1	Washoe	4,484	33	34.2	+4.3	59	23	-3	29	34	3.00	+1.50	2.71	11.5	4	18	10	3	SW	State University
Verdi—3	Washoe	4,895	14																	Agent So. Pacific Co.
Wabuska—1	Lyon	4,347	1	31.7		65	24	-4	13	48						11	4	16		J. H. Harcourt
Wadsworth—1	Washoe	4,077	32	31.8	-0.2	63	24	4	15	45	1.43	+0.65		5.0	2	22	0	9		Agent So. Pacific Co.
Means				34.3	+3.0						3.38	+1.07		13.5	5	18	5	8	SW	
Southern Section.																				
Belmont—1	Nye	8,132	12	28.7	+5.2	50	4	-1	28	29	0.76	-0.42	0.56	9.0	2	14	13	4	SW	W. N. Granger
Burler (Tonopah)—1	Nye																			Al. E. Rule
Candelaria—2	Esmeralda	5,783	14	38.0	+7.2	61	3	11	29	34	0.61	-0.17	0.61	6.0	1	18	6	7	N	A. G. Draper
Hawthorne—1	Esmeralda	4,569	16	36.4	+2.8	65	24	10	28	30	1.10	+0.51	0.80	2.0	2	14	6	11	S	T. G. Watterson
Morey—1	Nye	7,384		33.2		57	6	-4	29	37	1.69		1.50	17.0	3	11	19	1	S	Jas. B. Gilmore
Palmetto—2	Esmeralda	6,500	14	33.4	+7.9	65	6	4	29	44	1.00	-0.80	1.00	10.0	1	17	13	1	W	Wm. Oothout, Jr.
Rioville—1	Lincoln			47.1		72	26	23	1	42	0.11		0.11	0.0	1					Daniel Bonelli
Silver Peak—2	Esmeralda	4,382	8																	H. Latter
Sodaville—1	Esmeralda	4,665	5	35.2		61	24	9	14	38	0.76		0.53	2.0	3	16	12	3	N	Agent So. Pacific Co.
Means				36.6	+5.8						0.86	-0.22		6.6	2	16	11	4	N-S	
State Means				32.0	+5.0						1.81	+0.68		9.8	3	16	5	10	SW	State Means
Miscellaneous.																				
Modena (Utah)—1	Iron	5,479	2	32.1		58	6	7	30	38	0.12		0.08	1.9	2	18	5	8	W	U. S. Weather Bureau

REFERENCES: 1, Weather Bureau maximum and minimum thermometers in use; 2, self-registering maximum and minimum thermometers, not Weather Bureau, in use; 3, means and extremes of temperature from observations by ordinary thermometers at 7 a. m., 2 p. m. and 9 p. m. A small letter placed before the name of a station or against the data in the body of the form, indicates the number of days missing from the record, for instance, "n" denotes 14 days missing. *Italic figures* indicate that the maximum or minimum occurred on several dates. T indicates trace of precipitation. All records are used in determining State and district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

* Not considered in computing State or district means.

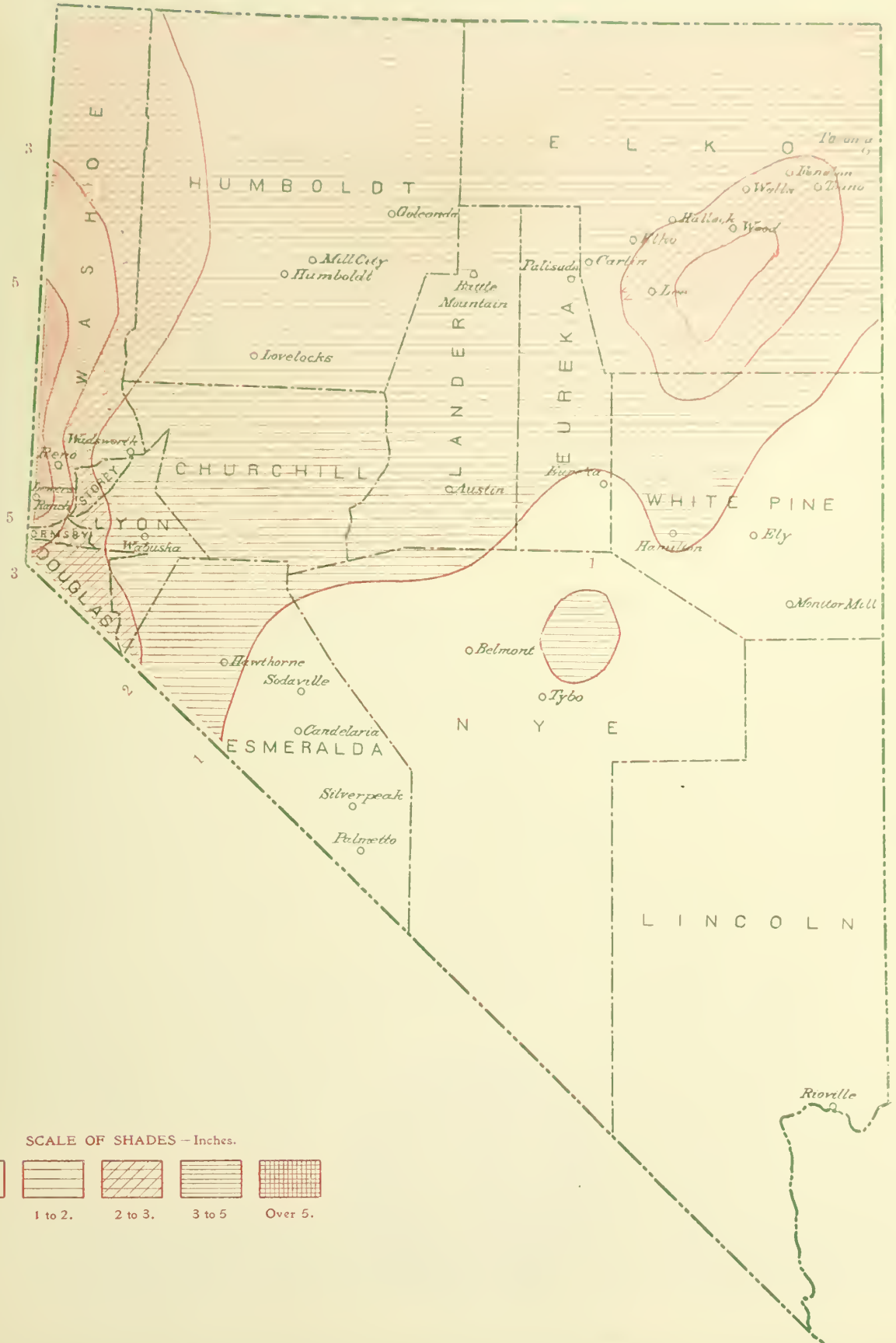
† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. || Postoffice—Elko. ¶ Postoffice—Amos.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JANUARY, 1903.

Stations.		Day of Month.																															Monthly Means.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Austin	Max. 48	38	41	43	47	54	53	44	44	42	31	33	37	38	37	35	33	34	42	40	45	44	45	44	45	51	48	45	47	44	21	35	32	41.0	
Battle Mountain	Min. 21	19	22	21	23	25	34	36	31	24	14	14	16	15	15	13	11	23	24	24	35	32	32	32	33	32	32	26	34	18	2	14	18	22.5	
Belmont	Max. 57	48	54	57	58	59	60	46	56	56	55	56	50	54	48	50	50	47	58	58	57	56	57	59	60	49	50	49	43	0	13	23	52.7		
Butler (Tonopah)	Min. 20	12	12	12	10	18	15	14	24	22	5	4	5	1	2	1	1	0	25	25	37	35	36	35	34	27	25	38	27	25	23	0	13	23	16.7
Butler (Tonopah)	Max. 37	36	41	50	48	50	46	42	32	32	33	33	47	38	36	35	34	38	39	42	35	34	48	45	43	37	30	25	26	25	23	23	37.9		
Candelaria	Min. 20	12	21	25	28	30	26	19	16	12	14	28	18	14	14	14	12	19	26	26	29	32	32	23	23	25	29	19	-1	2	9	11	19.5		
Carlin*	Max. 49	47	61	58	54	55	53	53	43	42	40	39	44	44	41	43	43	44	54	56	61	59	54	57	56	51	55	45	28	26	35	48.1			
Carson City	Min. 28	27	35	35	33	35	33	32	29	23	22	20	21	21	23	23	22	22	23	23	35	37	35	38	38	34	33	30	11	11	14	17	28.0		
Carson City	Max. 30	20	25	25	20	20	20	20	20	25	10	10	5	10	5	5	5	15	22	20	20	20	20	20	20	18	18	18	15	0	0	0	0	15.5	
Carson City (W. B.)	Min. 49	50	60	58	56	57	57	55	42	43	42	45	45	45	45	51	51	50	52	54	56	54	59	57	52	40	34	48.5							
Carson City (W. B.)	Max. 28	19	27	17	14	19	17	19	20	12	12	10	9	9	6	8	8	28	26	46	42	43	46	42	37	39	32	32	16	-6	-2	2	20.2		
Carson City (W. B.)	Min. 46	49	60	58	56	57	57	52	40	41	39	43	44	40	43	50	49	49	49	54	55	52	56	56	51	46	46	46	32	27	40	34	47.5		
Elko	Min. 31	20	24	20	19	17	19	23	13	13	14	12	10	10	8	11	11	12	29	30	45	42	42	42	48	38	32	31	16	-3	1	24	21.5		
Elko	Max. 40	38	46	46	40	43	40	37	38	38	40	39	36	37	36	36	37	35	40	45	42	42	42	47	45	44	40	45	40	42	43	40	40.5		
Ely	Min. 4	13	12	16	12	16	12	10	13	10	18	24	6	4	4	2	0	-3	37	42	45	42	46	49	45	44	44	44	30	27	25	-1	8	14.4	
Ely	Max. 36	41	46	45	50	52	54	48	47	33	36	38	38	38	38	38	38	36	37	42	45	42	46	49	45	44	44	43	24	32	32	32	40.9		
Eureka	Min. 12	16	24	17	21	17	20	20	21	8	7	6	7	5	4	10	7	5	12	25	25	32	26	28	34	23	32	32	17	-13	-4	12	15.4		
Eureka	Max. 36	38	52	51	52	59	50	45	39	32	34	40	40	41	37	35	39	38	45	45	45	42	47	53	48	47	52	46	25	28	31	31	42.3		
Halleck*	Min. 20	16	17	25	24	30	31	25	26	22	14	15	12	11	13	9	12	13	21	34	33	29	34	29	29	29	40	10	0	17	18	20	20		
Halleck*	Max. 43	38	30	45	43	40	40	40	48	36	32	32	42	40	40	40	40	40	38	44	38	48	58	54	54	42	40	42	32	32	34	36	40.4		
Hamilton	Min. 30	15	4	17	14	12	16	10	22	25	5	4	3	0	0	0	0	0	28	32	34	28	34	38	34	29	34	29	1	6	24	24	16.9		
Humboldt	Max. 50	53	51	55	48	55	52	45	40	38	39	40	42	35	40	42	40	44	45	50	54	48	58	61	51	50	45	51	50	34	28	36	36	45.3	
Humboldt	Min. 18	13	20	22	18	20	16	17	15	9	12	16	15	9	7	12	8	12	33	30	35	36	39	42	35	33	29	23	38	35	18	20	20.7		
Hawthorne	Max. 48	46	48	48	52	54	52	50	45	42	40	41	41	39	44	43	44	48	54	63	55	60	65	62	60	65	60	55	35	38	35	41	48.0		
Hawthorne	Min. 20	25	26	25	23	24	23	28	21	18	18	17	17	15	16	20	18	20	28	30	36	40	46	42	32	41	28	10	14	20	24	24	24.8		
Lewers' Ranch	Max. 48	50	59	56	55	56	58	52	41	43	43	42	46	45	48	47	47	50	53	56	52	52	56	53	51	42	30	32	30	37	33	33	46.9		
Lewers' Ranch	Min. 34	39	48	39	39	39	44	36	26	19	16	15	12	20	14	15	17	30	33	38	31	32	37	39	38	31	33	30	22	3	14	24	27.6		
Lovelock	Max. 48	50	52	47	50	44	47	51	44	36	26	19	16	15	12	20	14	17	20	30	31	27	26	35	37	40	37	40	52	49	52	46	51	47.6	
Lovelock	Min. 12	20	31	26	9	19	14	13	5	4	6	4	7	8	4	6	2	12	30	31	27	26	35	37	40	37	40	37	34	37	31	31	20.8		
Martin's Ranch	Max. 55	53	66	66	60	60	61	60	59	46	49	46	49	47	47	54	52	54	57	63	60	64	59	60	51	48	35	24	39	38	38	52.8			
Martin's Ranch	Min. 24	16	17	16	15	14	17	15	19	11	11	10	8	8	4	7	5	8	25	24	26	38	38	42	47	39	30	33	23	-8	-2	26	19.4		
Monitor Mill	Max. 39	45	51	51	55	48	55	52	45	40	38	39	40	42	35	40	42	40	44	45	50	54	48	58	61	51	50	45	51	50	34	28	36	36	45.3
Morey	Min. 18	13	20	22	18	20	16	17	15	9	12	16	15	9	7	12	8	12	33	30	35	36	39	42	35	33	29	23	38	35	18	20	20.7		
Morey	Max. 40	53	60	55	64	65	58	56	41	44	45	45	46	44	44	46	46	46	52	55	58	56	56	58	48	48	48	34	35	36	38	49.5			
Palmetto	Min. 10	20	20	20	24	24	24	24	24	14	20	7	10	8	8	10	12	10	11	25	24	24	30	31	27	35	27	4	8	18	18	17.4			
Palmetto	Max. 40	52	50	49	54	47	51	44	50	42	40	40	44	46	48	45	46	48	45	47	52	47	52	48	55	47	59	47	59	30	32	37	45.9		
Palsade	Min. 9	10	12	10	11	13	13	13	20	25	10	7	6	5	2	0	3	3	20	29	29	35	32	34	33	26	31	15	-2	10	13	13	14.5		
Potts	Max. 42	44	42	50	50	54	50	55	55	50	40	33	38	41	40	43	36	38	40	43	48	55	46	48	54	54	50	50	40	28	27	44.6			
Potts	Min. 2	6	2	10	12	12	20	14	10	10	8	3	7	6	2	1	2	0	20	23	30	28	27	29	22	20	22	28	-16	-12	16	12	12.0		
Quinn River Ranch	Max. 48	49	53	54	53	53	55	50	42	41	43	43	44	45	45	47	46	45	48	53	53	51	59	57	51	49	39	34	19	38	34	34	46.5		
Quinn River Ranch	Min. 20	21	23	22	19	19	23	21	24	15	13	14	13	12	10	11	12	13	32	31	44	40	44	47	38	31	31	15	3	5	17	22.0			
Reno	Max. 59	63	66	62	66	65	60	63	63	64	66	68	69	70	57	57	59	61	54	60	65	70	63	62	62	72	68	63	59	58	59	63.0			
Rioville	Min. 23	24	27	28	25	27	28	25	27	30	27	28	28	32	35	42	30	27	26	25	25	35	33	30	36	36	36	36	24	24	40	40	31.2		
Silver Peak	Max. 42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	
Silver Peak	Min. 42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	
Sodaville	Max. 48	49	53	54	53	53	55	50	42	41	43	43	44	45	45	47	46	45	48	53	53	51	59	57	51	49	39	34	19	38	34	34	46.5		
Sodaville	Min. 18	17	18	20	21	20	19	23	21	24	15	13	14	13	12	10	11	12	32	31	44	40	44	47	38	31	31	15	3	5	17	22.0			
Tecoma	Max. 30	39	37	50	40	40	40	40	40	40	39	38	37	35	36	35	35	38	39	40	41	43	38	36	41	31	36	29	13	17	12	31	21.6		
Tecoma	Min. 2	2	2	9	11	10	22	24	27	25	28</																								

*Extremes of temperature from readings of ordinary thermometer at 7 a. m., 2 p. m. and 9 p. m.

TOTAL PRECIPITATION FOR JANUARY, 1903



SCALE OF SHADES - Inches.



Day of Month.

T indicates trace. * Precipitation included in that of following day.

STATE PRINTING OFFICE, . . . UNION LABEL . . . ANDREW MAUTE, SUPT.



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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR FEBRUARY, 1903.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

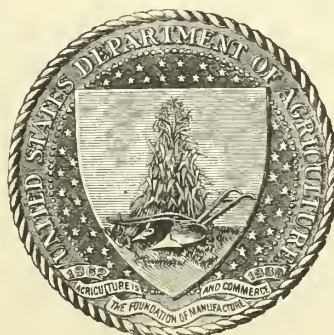
CHIEF OF WEATHER BUREAU,

BY

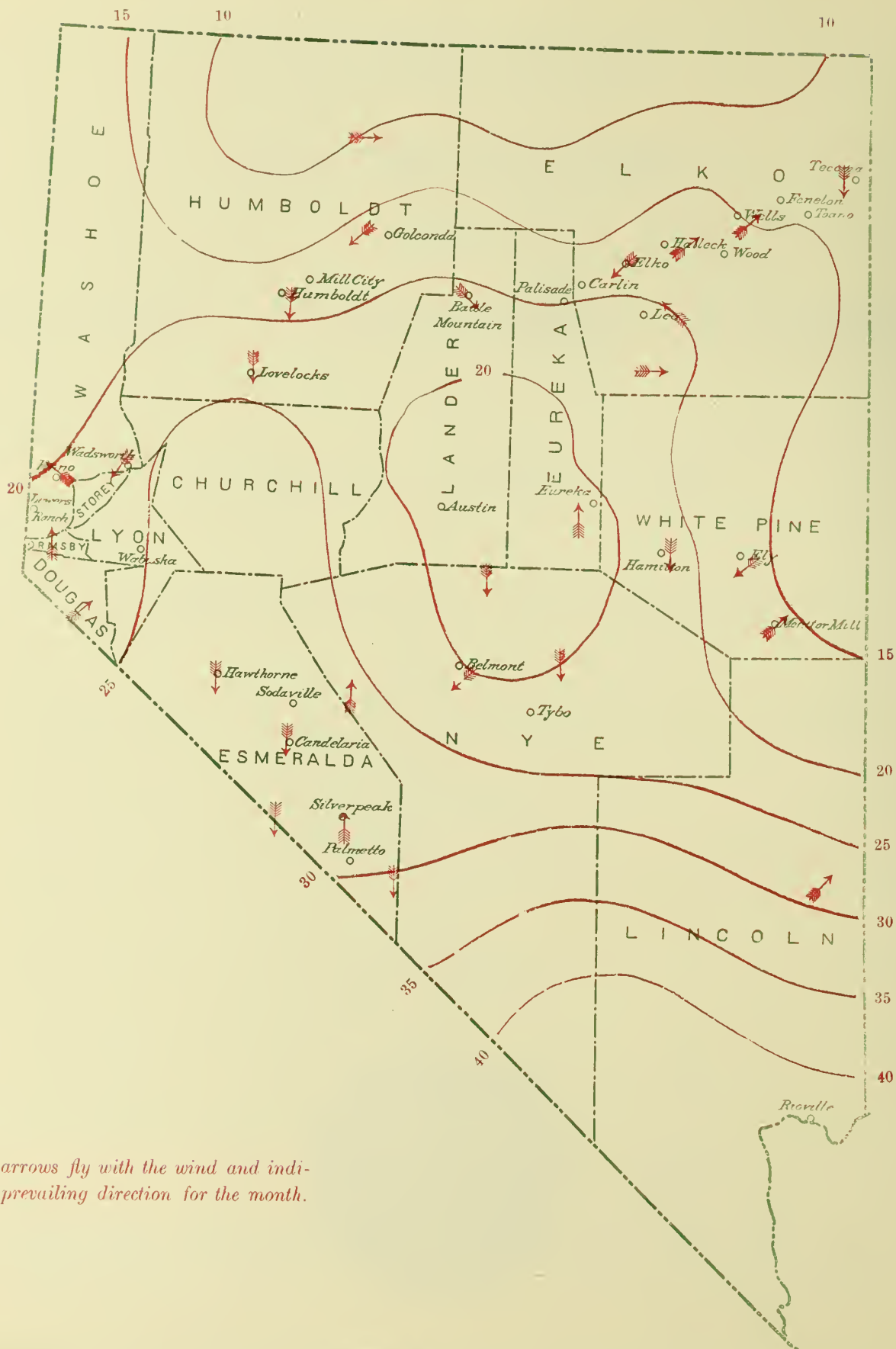
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR FEBRUARY, 1903



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION,

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL. XVII

CARSON CITY, NEVADA.

No. 2.

SUMMARY OF WEATHER CONDITIONS.

Throughout the greater part of the month the weather in Nevada was unusually cold, excepting from the 23d to 28th, when the daily minimum temperatures were generally above zero in most parts of the State. During the first and second decades the night temperatures in many districts ranged from zero to several degrees below, making it one of the longest cold spells experienced in Nevada for many years.

Clear skies were somewhat more frequent than usual, and the precipitation was much less than the average for February, being about half an inch below normal. The valleys were covered with snow the greater part of the month, and fine sleighing was enjoyed in most localities. Live stock did fairly well, although there were a few losses from cold and starvation. At the close of the month the outlook for a water supply during the coming season was the best in years.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 30.21 inches.

The highest pressure, 30.59 inches, was recorded at Winnemucca, on the 21st, and the lowest, 29.52 inches, at Carson City, on the 1st.

The absolute range of pressure for the State was 1.07 inches.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the reports of thirty-eight stations, was 20.7, which is 12.1 below normal, and 15.7 lower than the mean for the corresponding month of 1902.

By sections, the means were: Northern, 16.6; eastern, 17.4; central, 17.6; western, 23.3; southern, 28.1.

The highest monthly mean, 44.6, was recorded at Rioville, Lincoln county.

The lowest monthly mean, 7.6, was recorded at Quinn River Ranch, Humboldt county.

The highest temperature recorded during the month was 86, at Rioville, Lincoln county, on the 24th.

The lowest temperature recorded during the month was 32 below zero, at Wells, Elko county, on the 13th.

The absolute range of temperature for the State was 118.

The greatest local daily range of temperature at stations equipped with self-registering thermometers was 59, at Elko, Elko county, on the 15th, and the least, 4, at Lovelock, Humboldt county, and Reno, Washoe county, on the 2d.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 0.56 of an inch, which is 0.47 of an inch below normal, and 0.85 of an inch less than the average for the corresponding month of 1902.

By sections, the averages were as follows: Northern, 0.53 of an inch; eastern, 0.53 of an inch; central, 0.69 of an inch; western, 0.79 of an inch; southern, 0.45 of an inch.

The greatest monthly amount, 1.63 inches, was recorded at Lewers' Ranch, Washoe county, and the least, a trace, at Beowawe, Eureka county, and Sodaville, Esmeralda county.

The greatest amount recorded in any twenty-four consecutive hours was 0.80 of an inch, at Carlin, Elko county, on the 11th.

The average depth of the snowfall for the State, in the valleys, was 5.9 inches.

Relative Humidity.

Carson City—8 a. m., 83 per cent; 8 p. m., 76 per cent; monthly mean, 80 per cent.

Winnemucca—8 a. m., 87 per cent; 8 p. m., 74 per cent; monthly mean, 80 per cent.

Modena (Utah)—8 a. m., 76 per cent; 8 p. m., 68 per cent; monthly mean, 72 per cent.

Wind and Weather.

The prevailing direction of the wind was from the north.

The total movement of the wind at Carson City was 5,957 miles. Winnemucca, 5,511 miles; Modena (Utah) 4,403 miles. The maximum velocity at Carson City was 48 miles per hour, from the southwest, on the 11th; Winnemucca, 30 miles per hour, from the southwest, on the 11th, and 27 miles per hour, from the southwest, at Modena (Utah), on the 11th.

The average number of clear days was 17; partly cloudy, 9; cloudy, 9; days with .01 of an inch or more of precipitation, 3.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR FEBRUARY DURING THE PAST FOURTEEN YEARS.

Year.	Temperature			Average precipitation, Inches and hundredths.
	Mean.	Highest.	Lowest.	
1890	30.7	88	41	1.55
1891	30.5	65	19	2.39
1892	33.0	71	18	0.65
1893	29.9	69	40	1.13
1894	25.7	71	41	1.92
1895	31.1	77	35	1.23
1896	35.1	86	12	0.92
1897	29.6	67	22	2.09
1898	20.1	63	28	0.69
1899	33.3	73	27	0.55
1900	35.3	76	12	0.51
1901	31.6	77	27	2.61
1902	36.3	75	16	1.41
1903	20.7	86	32	0.56

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Lightning—Candelaria, 25th.

Dense Fog—Palmetto, 8th.

Light Fog—Belmont, 1st.

Lunar Halos—Carson City, 8th.

Solar Halos—Carson City, 18th, 21st.

Light Haze—Belmont, 19th, 20th, 21st.

Earthquake Shocks—Lewers' Ranch, 14th.

Pogonip—Reno, 6th, 10th, 18th, 19th, 20th, 21st, 22d.

High Winds—Carson City, 11th; Dyer, 11th, 12th; Candelaria, 11th, 12th; Palmetto, 12th, 13th, 14th, 24th, 28th.

OBSERVERS' REMARKS.

Reno—Month characterized by unusual cold and by prevalence of pogonip on large number of days, coming up in the morning and not disappearing until afternoon.

ALFRED DOTEN.

Quinn River Ranch—Thus far we have suffered no loss of stock. Greatest danger will be when turned out. As much snow on the flat as in the mountains. No fear of floods. Water will sink into the ground, which is not frozen, and not run off much.

F. M. PAYNE.

Lee—Very cold weather throughout the month.

MISS JENNIE WILLIAMS.

Lewers' Ranch—A very cold month. The minimum temperature was below zero on seven days during the month. Snow all over the valley; plenty of deep snow in the mountains.

E. R. LEWERS.

Hawthorne—More than the average snowfall in the adjacent mountains for many years.

T. G. WATTERSON.

Rioville—Coldest winter for twenty years. First snow on foothills in eighteen years.

DANIEL BONELLI.

Tecoma—Much colder and more snow than same month last year. Considered coldest weather in ten years past.

D. S. MORGAN.

Wood—It has been very cold throughout the month. Stock in good condition and very little loss in cattle.

A. H. WISEMAN.

Dyer—Very cold and disagreeable weather from 11th to 15th, the worst experienced in this section for years.

G. A. McAFEE.

NOTES.

The Chief of the Weather Bureau has authorized the establishment of a voluntary station at Fallon, Churchill county, with Mr. Thos. Dolf as voluntary observer, and at Caliente, Lincoln county, with Mr. E. W. Clark as voluntary observer.

The first report of observations from the voluntary observation station recently established at Dyer, Esmeralda county, in charge of Mr. G. A. McAfee, appears in our columns this month.

Observations have been resumed at Hamilton, White Pine county, and Silver Peak, Esmeralda county.

ERRATA.

January (1903) Report, page 5—Toano, mean of 2 p. m., temperature,

29.7 should read 29.8; Beowawe, monthly mean temperature, 41.2 should read 33.7; Fenelon, monthly mean temperature, 26.5 should read 26.6; Carlin, monthly mean temperature, 29.1 should read 27.6.

SNOWFALL IN THE MOUNTAINS.

According to reports of correspondents located over the watersheds of the State, extracts from which are published below, it appears that the storms which occurred during the past month, especially on the 1st, 4th and 5th, furnished more snow in the mountains, valleys and plains than has fallen in any previous February for several years. Fine sleighing was enjoyed in most districts during the greater part of the month. The weather was unusually cold, breaking all previous February records for continuous low temperature. There was little or no loss of snow in the mountains through melting as the daytime temperatures at high altitudes were below freezing throughout the month. High winds during storms drifted vast quantities of snow into the cañons and gulches where it is packed solid and in many localities nearly a hundred feet deep.

The outlook for an abundance of water during the coming season is the best in many years.

CORRESPONDENTS' REMARKS.

Humboldt Watershed.

Battle Mountain—We have had more snow and cold weather this winter than for a number of years past. J. J. REEVE, JR.

Bullion—A month of cold weather; too cold to storm much. F. J. FRANK.

Foltz—The snow will last much longer this year on account of a very heavy crust on top, caused by hard freezing and wet snow. J. B. FOLTZ.

Golconda—More snow this winter than usual. C. A. NICKELLS.

Wells—Recent thaws during day, accompanied by cold nights, have greatly settled the snow into vast sheets of almost solid ice in the valleys and lower foothills. PHIL S. TRIPLETT.

Winnemucca—About three times as much snow in the mountains as at this time last season. A good water supply is assured in the Humboldt. J. C. HAYDEN.

Paradise—Snow going off gradually; very little frost in the ground. T. J. BRADSHAW.

Hope Gulch—The average depth of snow in the mountains is from 6 to 10 feet. The snowfall for the winter so far is greater than for three years past, for the reason that it has extended all over the valleys and plains of Elko county, in depths ranging from 4 to 18 inches. CHAS. W. IRISH.

Walker River Watershed.

Bridgeport—The snowfall is about one-third greater this year. MINNIE PIMENTEL.

Wellington—The snowfall is much greater this winter than last. M. MACK.

Smith—I can get no definite knowledge of the depth of the snow at the summit of mountains. But from what I can learn I should think about 7 or 8 feet would be a safe estimate on the high mountains. C. M. CARTER.

Truckee Watershed and Lake Tahoe Drainage.

Wadsworth—There is more snow on the plains and low ranges in this section than for several years past. T. G. HERMAN.

Glenbrook—Snowfall less than usual for February. Seven inches was the greatest depth of the snowfall during the month. A. C. McCLEARY.

Tahoe—The snowfall during the month was about normal; about 10 feet on the mountains. J. U. HALEY.

Reno—Sheep and cattle men in northern part of county complaining of the hardship to stock caused by rigorous weather, but all indications point to a year of good crops and plenty of water. ALFRED DOTEN.

Boca—A great deal more snow this year than last. POSTMASTER.

Longabaugh's Wood Camp—There is more snow in the mountains in this vicinity than at the same time last year. JOHN FORSTER.

Donner—The average depth of snow in the mountains is about 7 feet. The snowfall of the month was about the same as last year.

POSTMASTER.

Hobart Creek—The snowdrifts on the east side of the mountains are from 70 to 85 feet deep. WM. A. WISE.

Reese River Watershed.

Spencer—The prospect is very fine for a good supply of water next summer. S. E. SPENCER.

Galena—Indications point to a fine water supply the coming season. G. S. MOORE.

Dean—The snow lays in large drifts and is very firm and solid on account of so much cold weather. L. M. PUGH.

Berlin—We have had heavy falls of snow during February. T. J. JONES.

Carson River Watershed.

Dayton—More snow in the mountains than at this time last year. THOS. P. MACK.

Gardnerville—More snow at headwaters of the Carson River for past twelve years at this time. P. C. WILDER.

Carson City—Plenty of snow in the mountains; fine water supply for the coming season assured. J. H. SMITH.

TABLE OF SNOWFALL.

Depth in Inches.

Station.	County.	Compared with average for February.	On ground in valley February 28th.	At or near summit of mountains.
Humboldt Watershed:				
Battle Mountain	Lander	Greater	None	24
Beowawe	Eureka	Less	None	24
Bullion	Elko	Less	12	60
Foltz	Humboldt	Greater	12	72
Golconda	Humboldt	Greater	None	24
Humboldt	Humboldt	Greater	4	48
Lamoille	Elko	Less	8	72
Palisade	Eureka	Greater	4	48
Paradise	Humboldt	Less	6	-----
Skelton	Elko	Average	4	-----
Rebel Creek	Humboldt	Greater	4	10
Wells	Elko	Greater	8	-----
Winnemucca	Humboldt	Less	None	360
Truckee Watershed and Lake Tahoe Drainage:				
Glenbrook	Douglas	Less	20	84
Tahoe, Cal.	Placer	Average	84	120
Reno	Washoe	Greater	None	-----
Boca, Cal.	Nevada	Greater	24	120
Ophir (near)	Washoe	Greater	90	96-240
Donner, Cal.	Placer	Average	84	84
Wadsworth	Washoe	Greater	None	36
Hobart Creek	Washoe	Greater	61	*940
Walker River Watershed:				
Bridgeport, Cal.	Mono	Greater	6	84
Waduska	Lyon	Average	None	84
Wellington	Lyon	Greater	2	36-72
Smith	Lyon	Greater	None	84
Carson River Watershed:				
Carson City	Ormsby	Greater	None	84
Gardnerville	Douglas	Greater	None	72
Sheridan	Douglas	Greater	None	-----
Genoa	Douglas	Greater	10	81
Dayton	Lyon	Greater	None	24
Reese River Watershed:				
Austin	Lander	Less	5	24
Spencer	Lander	Greater	6	24
Galena	Lander	Average	12	24
Dean	Lander	Greater	18	33
Berlin	Nye	Greater	18	24

*Drifts.

AVERAGE HOURLY WIND MOVEMENT FOR FEBRUARY, 1903. 75th Meridian Time.

Station.	1 a.m.	2	3	4	5	6	7	8	9	10	11	12 noon	1 p.m.	2	3	4	5	6	7	8	9	10	11	12 midn't	For the month.
Carson City	4.1	4.0	3.6	3.7	3.5	3.4	3.5	3.5	4.0	3.9	3.6	3.8	4.4	4.8	5.0	5.4	5.6	5.5	6.3	7.1	6.0	5.7	5.3	4.6	4.6
Winnemucca	8.0	7.5	7.1	7.2	7.4	7.2	7.4	7.0	7.4	8.0	7.4	7.9	8.9	8.7	8.9	8.8	8.6	8.7	9.3	9.8	9.4	9.0	9.0	8.1	8.2
Modena (Utah)	6.4	6.8	6.7	7.2	7.2	7.4	7.5	6.5	6.3	6.6	6.5	6.0	5.5	5.7	6.0	6.5	7.4	8.3	7.7	6.5	6.3	6.1	6.7	7.1	6.7

PREVAILING HOURLY WIND DIRECTION FOR FEBRUARY, 1903.

Carson City	N	S	N	N	N	S	S	S	SW	SW	S	S	SE	SE	SE	SE	SE	S	S	S	NW	NW	S	SW	SW
	N	SW	N	SW	SW	S	S	S	SW	SW	S	S	SE	SE	SE	SE	SE	S	S	S	NW	NW	S	SW	SW

CLIMATOLOGICAL DATA FOR FEBRUARY, 1903.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (inches).							W. Ky.	Observer.	
				Mean.	Departure from the normal.	Highest.	Day.	Lowest.	Day.	Greatest daily range.	Total.	Departure from the normal.	Greatest at once.	Total snowfall (quantity).	Number rainy days.	Number fair days.	Number partly cloudy days.			Number overcast days.	Prevailing direction of wind.
Northern Section.																				
Battle Mountain—1	Lander	4,511	33	21.1	-11.6	60	23	20	13	50	0.20	-0.57	0.10	3.5	2	25	0	3	SW	Agent So. Pacific Co.
Beowawe—3	Eureka	4,665	33	22.8	-8.1	35	20	10	14	—	T	-0.71	T	—	0	23	1	4	S	Agent So. Pacific Co.
Carlin—3	Elko	4,897	33	15.2	-10.1	31	11	18	14	—	1.30	+0.35	0.80	13.0	2	25	0	3	SW	Agent So. Pacific Co.
Crane's Ranch†	Elko	5,350	16	—	—	—	—	—	—	—	0.31	-0.58	0.15	—	4	21	4	3	W	W. T. Crane
Elko—1	Elko	5,063	33	19.2	-8.7	42	11	18	13	50	0.12	-0.60	0.10	1.2	2	20	6	2	NE	C. H. Sprinkle
Fenelon—3	Elko	6,128	16	15.2	-11.6	48	20	18	13	—	1.35	-0.22	0.60	13.5	6	11	9	8	SW	Agent So. Pacific Co.
Gileconda—3	Humboldt	4,392	25	21.5	-13.5	52	28	-20	13	—	0.60	-0.01	0.60	6.0	1	24	1	3	—	Agent So. Pacific Co.
Hallock—3	Elko	5,229	31	17.0	-9.0	46	22	22	13	—	0.50	-0.59	0.30	5.0	2	18	5	5	—	Agent So. Pacific Co.
Humboldt—1	Humboldt	4,236	32	16.2	-18.2	43	10	11	3	26	0.01	-0.79	0.01	0.1	1	17	3	8	N	Agent So. Pacific Co.
Lee	Elko	—	5	—	—	—	—	—	—	—	0.82	-0.02	0.25	11.0	7	16	4	8	SE	Miss Jennie Williams
Lovelock—1	Humboldt	3,977	12	24.0	-12.0	50	27	-10	7	39	0.05	-0.48	0.05	0.5	1	20	0	8	N	Agent So. Pacific Co.
Mill City—3	Humboldt	4,225	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Agent So. Pacific Co.
Palisade—1	Eureka	4,821	22	17.8	-11.8	47	11	-17	13	44	0.10	-1.03	0.10	1.0	1	23	0	5	—	Agent So. Pacific Co.
Quinn River Ranch‡—1	Humboldt	4,850	2	7.6	—	42	26	-31	5	55	0.10	—	0.10	1.0	1	14	9	5	W	F. M. Payne
Tecoma—1	Elko	4,812	26	11.8	-16.3	42	10	-22	13	37	0.33	-0.18	0.30	2.0	2	20	2	6	—	Agent So. Pacific Co.
Toano—3	Elko	5,975	34	14.6	-11.9	49	21	-19	12	—	0.90	+0.06	0.80	9.0	2	19	5	4	N	Agent So. Pacific Co.
Wells—3	Elko	5,623	32	11.4	-15.1	48	25	-32	13	—	1.60	—	0.60	16.0	3	10	0	18	SW	Agent So. Pacific Co.
Winnemucca—1	Humboldt	4,432	25	15.9	-16.6	44	21	-21	13	38	0.39	-0.54	0.15	4.2	3	17	7	4	NE	U. S. Weather Bureau
Wood—1	Elko	6,000	4	14.7	—	47	10	-21	14	39	0.81	—	0.50	8.1	3	16	7	5	—	A. H. Wiseman
Means		—	—	16.6	-12.5	—	—	—	—	—	0.53	-0.36	—	5.9	2	19	3	6	SW	—
Eastern Section.																				
Ely—2	White Pine	6,000	16	15.3	-13.8	45	10	-20	13	40	0.10	-0.91	0.30	4.0	3	19	2	7	NE	Chas. S. Grunditz
Hamilton—1	White Pine	7,977	3	20.6	—	53	21	-13	13	37	1.00	—	0.80	10.0	2	14	9	5	N	Mrs. J. F. Beck
Monitor Mill||—1	White Pine	6,400	5	16.2	—	52	19	-22	12	51	0.15	—	0.06	1.8	3	16	2	10	SW	Jas. B. Orr
Means		—	—	17.4	-13.8	—	—	—	—	—	0.52	-0.91	—	5.2	2	16	4	8	SW	—
Central Section.																				
Austin—1	Lander	6,594	15	20.3	-15.4	44	22	-12	14	34	0.49	+0.07	0.34	—	3	—	—	—	—	G. M. Dyer
Eureka—1	Eureka	6,900	1	19.5	-8.8	47	10	-18	13	41	1.20	+0.38	0.40	12.0	5	15	5	8	S	D. M. Broy
Potts—1	Nye	6,826	11	13.0	-13.4	45	22	-29	13	51	0.38	-0.60	0.15	4.2	5	13	3	12	N	Miss Bessie Potts
Means		—	—	17.6	-12.5	—	—	—	—	—	0.69	-0.05	—	8.1	4	14	4	10	S	—
Western Section.																				
Carson City—2	Ormsby	4,660	24	21.8	-14.7	51	23	-16	6	42	0.69	-0.80	0.27	9.4	10	16	9	3	S	C. W. Friend
Carson City (W. B.)—1	Ormsby	4,720	14	22.0	-14.5	51	23	-12	6	40	1.04	-0.45	0.43	8.7	5	17	7	4	S	U. S. Weather Bureau
Hot Springs—3	Churchill	4,072	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Agent So. Pacific Co.
Lewers' Ranch‡—1	Washoe	5,200	16	23.4	-11.2	52	10	-7	13	34	1.63	-1.65	0.52	14.4	7	17	11	0	—	B. R. Lewers
Martin's Ranch‡—2	Douglas	4,830	5	22.9	-13.6	54	23	-15	13	50	0.92	-0.57	0.32	6.0	5	19	4	5	—	Mrs. J. H. Martin
Reno—1	Washoe	4,484	33	20.1	-14.8	44	11	-11	6	34	1.00	-0.08	0.50	7.3	7	17	10	1	SE	State University
Verdi—3	Washoe	4,895	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Agent So. Pacific Co.
Wabuska—1	Lyon	4,347	1	26.4	—	56	21	-4	4	37	0.02	—	0.02	0.2	1	20	1	7	—	J. H. Harcourt
Wadsworth—1	Washoe	4,077	32	26.5	-11.9	50	10	-3	13	32	0.22	—	0.20	2.2	2	13	8	7	W	Agent So. Pacific Co.
Means		—	—	23.3	-13.4	—	—	—	—	—	0.79	-0.71	—	6.9	5	17	7	4	S	—
Southern Section.																				
Belmont—1	Nye	8,132	12	19.0	-5.8	40	21	-11	13	40	0.02	-1.34	0.02	0.2	1	23	4	1	NE	W. N. Granger
Butler (Tonopah)—1	Nye	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Candelaria—2	Esmeralda	5,783	14	27.4	-8.3	50	23	2	13	28	1.20	+0.78	0.75	12.0	4	15	5	8	N	A. G. Draper
cDyer	Esmeralda	4,835	—	29.7	—	65	11	3	7	47	0.11	—	0.06	2.2	2	19	3	3	—	G. A. McAfee
Hawthorne—1	Esmeralda	4,569	16	27.7	-11.1	58	12	5	13	45	0.35	-0.05	0.20	4.0	2	14	1	13	N	T. G. Watterson
Morey—1	Nye	7,384	—	21.6	—	50	10	-9	12	37	0.69	—	0.36	12.0	3	11	17	0	N	Jas. B. Gilmore
Palmetto—2	Esmeralda	6,500	14	25.8	-5.9	55	11	-9	3	48	1.00	-0.74	0.40	10.0	4	20	3	5	N	Wm. Oothout, Jr.
Rioville—1	Lincoln	—	—	44.6	—	86	24	20	16	51	0.24	—	0.19	0.0	2	—	—	—	—	Daniel Bonelli
Silver Peak—2	Esmeralda	4,382	8	29.1	—	54	21	1	5	49	0.30	—	0.20	3.0	2	20	0	8	S	Geo. A. Kincaid
Sodaville—1	Esmeralda	4,665	5	28.1	—	56	11	5	13	41	T	—	T	T	0	10	16	2	NW	Agent So. Pacific Co.
Means		—	—	28.1	-8.4	—	—	—	—	—	0.45	-0.34	—	4.8	2	16	7	5	N	—
State Means		—	—	20.7	-12.1	—	—	—	—	—	0.56	-0.47	—	5.9	3	17	5	6	N	State Means
Miscellaneous.																				
Modena (Utah)—1	Iron	5,479	2	15.0	—	48	23	-17	4	38	0.85	—	0.52	9.1	6	20	1	7	W	U. S. Weather Bureau

REFERENCES: 1, Weather Bureau maximum and minimum thermometers in use; 2, self-registering maximum and minimum thermometers, not Weather Bureau, in use; 3, means and extremes of temperature from observations by ordinary thermometers at 7 a. m., 2 p. m. and 9 p. m. A small letter placed before the name of a station or against the data in the body of the form, indicates the number of days missing from the record, for instance, "n" denotes 14 days missing. *Italic figures* indicate that the maximum or minimum occurred on several dates. T indicates trace of precipitation. All records are used in determining State and district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

* Not considered in computing State or district means.

† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. || Postoffice—Elko. ¶ Postoffice—Amos.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR FEBRUARY, 1903.

Stations.	Day of Month.																															Monthly Means.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Austin	Max. 26	21	17	18	16	20	34	35	32	42	40	28	8	10	13	21	36	39	40	41	42	44	40	34	33	30	29	34				29.4
Battle Mountain	Min. 12	11	-5	0	-2	-1	13	16	10	20	27	-6	-10	-12	-5	2	12	18	21	21	29	29	24	40	34	24	18	14	21			11.2
Belmont	Max. 25	30	34	35	31	27	48	45	47	53	35	-6	-20	-19	-11	-13	-10	-7	-5	-4	13	21	29	24	57	55	50	55	50			40.5
Belmont	Min. -8	-6	-13	6	-11	-13	-7	20	8	12	20	-5	-20	-19	-11	-13	-10	-7	-5	-4	13	21	29	24	57	55	50	55	50			2.2
Candelaria	Max. 22	13	14	13	12	20	23	25	37	38	38	15	-9	-11	-9	17	37	38	38	39	40	39	40	32	32	32	30	30			28.2	
Candelaria	Min. 8	9	-2	11	10	12	15	7	25	-1	-2	-9	-11	-9	-1	12	18	17	21	23	26	21	28	11	12	15	14	10			9.7	
Carlin*	Max. 34	23	21	21	26	31	31	36	42	49	49	39	16	21	26	33	40	44	45	46	48	42	50	43	44	39	49	41			36.8	
Carlin*	Min. 19	16	4	12	11	3	12	17	19	27	34	33	2	2	9	4	9	15	24	24	26	28	33	32	32	27	26	25			18.1	
Carson City	Max. 25	27	29	32	30	27	15	20	25	32	34	32	30	27	20	17	16	25	27	28	29	33	32	32	32	33	34	33			27.7	
Carson City	Min. 0	0	0	10	-10	-15	-3	18	0	10	12	7	-12	-18	-14	0	-5	0	0	0	5	10	5	10	15	10	15	15			1.6	
Carson City	Max. 28	23	21	19	18	38	40	47	40	47	46	26	20	27	32	32	38	37	42	43	48	44	48	41	45	45	45			35.7		
Carson City (W. B.)	Min. 19	3	-13	2	-6	-16	3	17	5	5	23	4	-12	-10	-11	-4	-2	1	5	8	12	24	34	28	30	24	23			7.9		
Carson City (W. B.)	Max. 27	20	20	22	18	18	36	38	40	48	47	22	19	25	28	32	36	38	44	43	42	49	51	41	40	43	43			31.8		
Dyer	Min. 19	4	-10	5	-12	4	22	4	8	8	22	4	-10	-8	-9	-4	0	3	8	9	11	24	34	30	30	25	20	29			9.2	
Dyer	Max. 38	45	37	33	38	45	42	50	57	65	54	27	31	30	34	45	55	52	49	55	50	51	43	45	38	45	47	43			44.6	
Elko	Min. -5	-11	-13	-8	-11	-15	-10	20	5	10	20	-9	-18	-18	-10	-6	-2	0	5	8	11	25	25	25	24	26	12	28			37.5	
Ely	Max. 24	22	17	12	12	17	33	33	37	45	41	8	7	11	13	23	38	45	42	38	45	40	35	32	33	33	31			28.7		
Eureka	Min. -7	-10	-10	-15	-16	-11	-5	13	3	10	20	-8	-20	-16	-19	-10	5	6	8	10	17	18	22	14	13	12	5			1.9		
Halleck*	Max. 24	25	21	16	16	21	32	28	46	47	44	31	10	-11	-23	-10	35	36	40	41	47	42	39	32	35	33	30			30.8		
Halleck*	Min. 9	8	-6	-2	-4	1	4	15	6	9	29	-10	-18	-16	-8	-3	8	38	38	40	42	44	46	40	42	42	38			8.2		
Hamilton	Max. 34	28	24	20	28	28	32	34	36	42	43	23	24	28	28	38	38	40	42	44	46	40	42	42	42	38	32			33.8		
Hamilton	Min. 0	-10	-16	0	-14	-14	4	22	2	28	45	-25	0	-18	-12	-5	-3	2	2	2	10	22	24	18	6	10	3			0.3		
Humboldt	Max. 20	25	30	26	30	25	30	25	30	40	45	25	0	8	20	39	45	51	49	50	53	51	42	40	39	40	32			33.2		
Humboldt	Min. -2	-11	5	4	0	5	9	10	20	15	-10	-13	-9	-2	-2	2	10	15	17	20	25	22	20	25	20	15	9			8.1		
Hawthorne	Max. 23	12	11	10	12	13	30	32	27	43	40	18	15	-18	-15	18	22	22	25	28	30	31	43	39	36	37	40			25.7		
Hawthorne	Min. 8	-8	-11	-6	-4	1	10	10	8	11	28	33	7	-8	-4	-6	-4	-2	1	0	2	4	5	21	22	22	20			6.6		
Lewers' Ranch	Max. 41	38	25	32	25	26	32	35	40	48	50	58	21	18	23	28	32	38	40	42	43	48	43	50	45	42	43			37.5		
Lewers' Ranch	Min. 24	17	6	10	10	6	9	18	18	24	28	34	18	23	26	27	32	34	36	39	44	51	47	48	42	41	42			35.4		
Lovelock	Max. 26	24	24	23	19	26	42	38	41	52	48	34	18	23	26	27	32	34	36	40	41	42	41	42	41	41	41			17.9		
Lovelock	Min. 19	9	-4	-6	-4	-5	11	21	12	18	34	11	-7	-7	-3	0	4	8	10	13	15	25	32	27	27	21	18			33.1		
Martin's Ranch	Max. 46	36	37	40	36	33	24	22	25	27	18	21	17	16	14	26	27	36	32	40	43	44	45	42	45	42	50			15.0		
Martin's Ranch	Min. 37	32	16	12	-1	-6	-10	-12	18	20	10	5	-35	-2	-4	-4	-2	18	20	24	28	27	30	31	32	26	29			36.9		
Monitor Mill	Max. 32	33	23	27	20	20	38	42	38	40	49	25	35	24	28	30	35	37	42	39	44	54	45	44	47	50	49			8.9		
Monitor Mill	Min. 18	17	-11	-2	-10	-15	4	20	5	7	33	16	-15	-14	-11	-7	-4	-1	4	6	10	22	32	32	30	37	23			31.8		
Morey	Max. 26	23	20	18	26	35	27	38	49	42	9	12	11	11	18	33	34	45	52	47	45	46	41	34	36	34	33			0.5		
Morey	Min. -4	10	-8	-15	-8	-12	-4	12	-9	22	-9	-22	-19	-12	0	5	7	10	8	15	15	20	9	5	4	0	6			34.6		
Palmetto	Max. 34	27	29	22	32	36	31	42	50	9	10	14	20	30	38	47	50	49	49	50	45	41	35	39	37	45	32			39.2		
Palmetto	Min. 4	9	-3	-5	5	2	6	5	2	-1	-9	-6	-5	0	3	11	18	19	19	19	20	23	19	20	18	14	11			12.4		
Palisade	Max. 31	22	28	26	23	35	37	33	51	54	55	26	17	22	22	30	39	46	48	50	50	53	45	50	45	42	45			38.2		
Palisade	Min. 15	14	-9	11	8	3	9	16	28	12	2	2	2	7	1	10	14	17	20	20	30	30	40	41	40	40	45			12.4		
Potts	Max. 30	26	23	22	23	22	25	36	44	47	25	27	21	24	30	38	38	39	39	39	40	40	41	41	40	40	41			33.6		
Potts	Min. 0	-1	-11	-3	-8	-7	-4	20	2	11	12	-4	-17	-16	-13	-6	-2	3	1	2	4	6	20	34	32	30	34			2.1		
Quinn River Ranch	Max. 30	17	15	15	16	31	34	34	46	50	3	3	34	6	13	15	21	35	36	38	41	41	45	40	31	32	30			28.7		
Quinn River Ranch	Min. -5	-8	-22	-10	-18	-20	-4	16	-5	3	25	-8	-29	-28	-25	-17	-5	1	4	6	18	10	10	10	15	4	3			2.8		
Reno	Max. 29	29	11	10	4	8	12	15	21	24	40	15	-22	-15	-22	-22	-19	-22	21	24	25	24	34	39	40	42	40			24.5		
Reno	Min. 11	-3	-22	-3	-31	-10	-10	-12	-9	-12	-15	-22	-31	-31	-31	-22	-19	-16	-17	-12	-8	-5	17	8	8	7	8			-9.4		
Riverville	Max. 27	20	19	20	13	12	38	37	34	36	44	25	18	18	18	20	23	27	29	31	31	34	43	40	37	38	41			20.9		
Riverville	Min. 16	16	5	-2	-11	4	21	12	12	12	25	8	-4	-6	-4	-1	1	3	7	9	9	22	22	28	27	21	19			10.3		
Silver Peak	Max. 52	57	52	47	57	50	53	45	57	60	63	56	42	51	50	53	62	67	73	74	78	69	69	86	67	68	66			60.1		
Silver Peak	Min. 32	36	25	29	33	23	21	31	33	31	23	31	25	30	32	26	28	40	44	46	49	54	50	52	45	48	50			43.6		
Sodaville	Max. 45	48	51	45	50	47	48	42	48	42	38	32	30	32	30	28	28	40	44	46	49	54	50	52	45	48	50			29.1		
Sodaville	Min. 18	18	6	1	1	3	5	10	11	10	6	6	4	5	5	2	12	18	15	15	15	21	24	27	37	36	40			43.6		
Sodaville	Max. 39	24	30	27	26	34	33	39	45	50	56	22	20	25	29	36	45	51	52	55	50	52	47	45	44	52	44			40.1		
Tecoma	Min. 18	9	13	15	12	12	16	17	20	23	15	6	5	8	12	9	14	17	18	17	18	22	22	24	23	26	16			16.1		
Tecoma	Max. 30	20	19	20	22	21	20	24	27	42	40	16	10	16	17	18	17	23	26	28	27	30	35	37	37	35	28			25.7		
Wabuska	Min. 11	3	-13	-13	-15	-8	-14	0	5	6	15	-1	-22	-21	-16	-13	-16	-8	-4	1	15	23	20	15	23	9	7			2		

*Extremes of temperature from readings of ordinary thermometer at 7 a. m., 2 p. m. and 9 p. m.

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DAILY PRECIPITATION FOR FEBRUARY, 1903.

Stations.	Day of Month.																															Total.		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Northern Section.																																		
Battle Mountain	T							.10			T	.10																					.20	
Beowawe								.50			.80																						T	1.30
Carlin	.07						.07				.15												.05										.34	
Crane's Ranch	.10								.02																								.12	
Elko																																		
Fenelon							.20			.35	.60	.10											.05	T				.05					1.35	
Golconda									.60		.20																						.60	
Halleck	T						.30																										.50	
Humboldt							.01																						T				.00	
Lee	.25					.10	.08					.20											.14	.02	.03								.82	
Lovelock		.05																															.05	
Mill City																																		
Palisade																																	.10	
Quinn River Ranch																							.10										.10	
Tecoma	T						.30				.03																						.33	
Tono								.10			.80																						.90	
Wells		.60						.40			.60																						1.60	
Winnemucca	.15						T	.10			.14												T	T									.39	
Wood								.25			.50														.06								.81	
Eastern Section.																																		
Ely	.05							.30			T																						.40	
Hamilton	.80							.20	T															T	T								1.00	
Monitor Mill	.06	.05					.04				T													T	T								.15	
Central Section.																																		
Austin								.34			.07																						.49	
Eureka	.20	.30						.10			.40												T	.20	T								1.20	
Potts	.15	.10						.10			.02	.01												T	T								.38	
Western Section.																																		
Carson City (W. B.)	.18	T		.05				.30			T	.08												.43	T	T	T						1.04	
Hot Springs																																		
Lewers' Ranch	.16	.14		.12			.04	.35			.30													.52	T								1.63	
Martin's Ranch	T	.10		.15				.15				.20																					.92	
Reno	.20	.50	T	.05	.02			.09			.06												T	.08	T								1.00	
Verdi																																		
Wabuska			T			.02																	T										.02	
Wadsworth							.02				.20																						.22	
Southern Section.																																		
Belmont							.02																										.02	
Butler (Tonapah)																																		
Candelaria	.20	.10		.15			.75																										1.20	
cDyer					.05			.06			T																						.11	
Hawthorne				.15							.20																						.35	
Morey	.36	.25		T				.08																									.69	
Palmetto	.20	.30		.40				.10																									1.00	
Rioville	.19			.05																													.24	
Silver Peak						.20	.10																										.30	
Sodaville							T																										T	
Miscellaneous.																																		
Modena (Utah)	.52	.27	T					.01				.03		.01											.01		T						.85	

T indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA:

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1903

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR MARCH, 1903.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

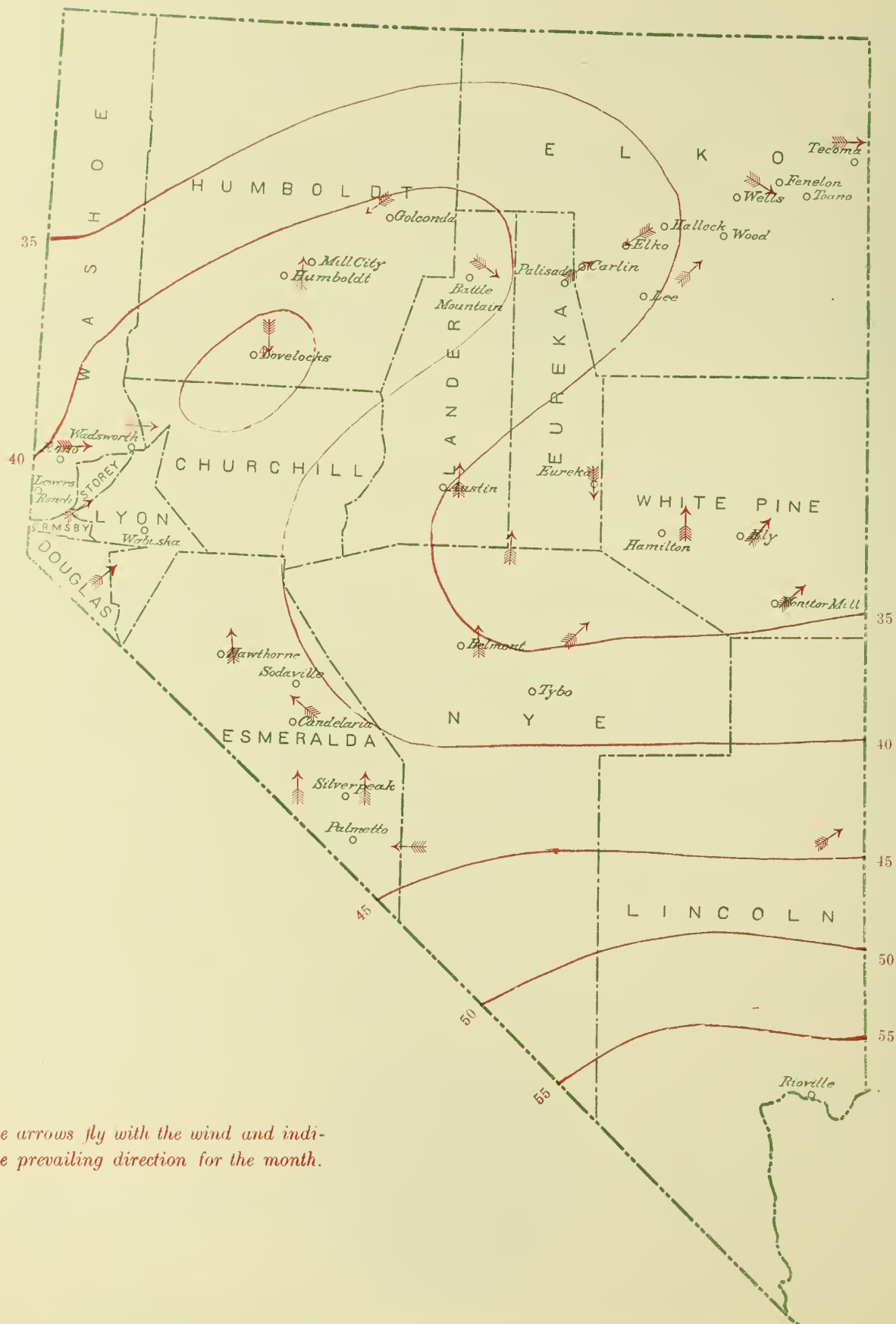
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR MARCH, 1903



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,
CARSON CITY, NEVADA.

VOL. XVII.

CARSON CITY, NEVADA

No. 3

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.93 inches.

The highest pressure, 30.35 inches, was recorded at Modena, on the 1st, and at Winnemucca, on the 20th.

The lowest pressure, 29.59 inches, was recorded at Modena, on the 17th, and at Winnemucca, on the 21st.

Absolute range of pressure for the State, 0.42 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the reports of thirty-five stations, was 38.7, or about normal, and 3.5 in excess of the mean for the corresponding month in 1902.

By sections, the means were as follows: Northern, 38.2; eastern, 31.9; central, 33.3; western, 41.3; southern, 41.5.

The highest monthly mean, 59.2, was recorded at Rioville, Lincoln county.

The lowest monthly mean, 30.1, was recorded at Hamilton, White Pine county.

The highest temperature recorded during the month was 90, at Rioville, Lincoln county, on the 30th.

The lowest temperature recorded during the month was 8 below zero, at Potts, Nye county.

The absolute range of temperature for the State was 98.

The greatest local daily range of temperature at stations equipped with self-registering thermometers was 50, at Rioville, Lincoln county, on the 11th, and the least, 8, at Eureka, Eureka county, and Humboldt, Humboldt county, on the 3d.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 1.41 inches, which is 0.35 of an inch above normal, and 0.06 of an inch less than the average for the corresponding month of 1902.

By sections, the averages were as follows: Northern, 1.23 inches; eastern, 1.21 inches; western, 2.00 inches; central, 2.27 inches; southern, 1.03 inches.

The greatest monthly amount, 5.36 inches, was recorded at Beowawe, Eureka county, and the least, a trace, at Hawthorne, Esmeralda county.

The greatest amount recorded in any twenty-four consecutive hours, was 2.60 inches, at Beowawe, on the 4th.

The average depth of the snowfall for the State, in the valleys, was 9.2 inches.

Relative Humidity.

Carson City—8 a. m., 74 per cent; 8 p. m., 50 per cent; monthly mean, 62 per cent.

Winnemucca—8 a. m., 83 per cent; 8 p. m., 58 per cent; monthly mean, 70 per cent.

Modena (Utah)—8 a. m., 75 per cent; 8 p. m., 48 per cent; monthly mean, 61 per cent.

Wind and Weather.

The prevailing direction of the wind was from the south.

The total movement of the wind at Carson City was 6,075 miles; Winnemucca, 6,464 miles; Modena (Utah), 6,836 miles. The maximum velocity at Carson City was 37 miles per hour, from the southwest, on the 28th; Winnemucca, 52 miles per hour, from the southwest, on the 30th, and 41 miles per hour, from the southwest, at Modena (Utah), on the 5th.

The average number of clear days was 12; partly cloudy, 7; cloudy, 12; days with 0.01 of an inch or more of precipitation, 5.

FARMING OPERATIONS.

In most sections of the State the weather during March was favorable for farm work. At the close of the month plowing was well advanced and

considerable grain had been sown. Warm rains the last few days of the month were beneficial to alfalfa pastures and meadows.

In the extreme southeastern part of the State vegetation is well advanced and the growing crops are in excellent condition. Early sown fall grains are beginning to head and alfalfa is well begun. Grass and clover still are up and making vigorous growth. Fruit trees are well set and will be later in blooming than last year.

The heavy stock of snow in the mountain ranges assures an abundance of water during the summer months for irrigation, mining and other purposes.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR MARCH DURING THE PAST FIFTEEN YEARS.

Year.	Mean.	Temperature—Highest.	Lowest.	Precipitation—Inches and Hundredths.
1889	44.1	85	12	1.44
1890	39.0	82	15	1.44
1891	33.9	78	2	1.59
1892	40.3	78	2	1.81
1893	35.9	85	21	1.90
1894	38.1	88	13	1.02
1895	37.7	80	22	0.42
1896	39.1	90	18	1.15
1897	30.9	86	19	1.39
1898	35.0	79	10	0.63
1899	38.6	79	1	1.83
1900	41.2	81	5	0.71
1901	38.9	90	0	0.59
1902	35.2	69	0	1.17
1903	38.7	90	8	1.41

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Lunar Halos—Reno, 10th.

Solar Halos—Carson City, 8th.

Corona—Candelaria, 10th, 11th.

Lightning—Monitor Mill, 29th.

Distant Thunder—Palmetto, 23d.

Thunderstorms—Lee, 28th, 29th.

Fogs, Dense—Palmetto, 4th, 25th, 31st; Hamilton, 3d, 8th.

Sleet—Reno, 8th, 14th; Palmetto, 13th, 31st; Potts, 24th.

Hail—Reno, 8th; Tecoma, 28th; Lee, 28th, 29th, 31st; Carson City, 14th; Belmont, 16th, 24th, 30th; Hamilton, 4th, 5th, 16th, 17th, 24th, 25th, 29th.

High Winds—Silver Peak, 11th, 12th, 17th, 18th, 23d, 30th; Palmetto, 15th, 16th, 17th, 18th, 30th; Potts, 10th, 11th, 12th, 13th, 17th, 30th, 31st; Morey, 17th; Winnemucca, 30th.

OBSERVERS' REMARKS.

Tecoma—Snow all gone from the bottom lands. D. S. MORGAN.

Beowawe—A great deal of snow in the mountains. C. E. LORE.

Lee—First part of month very cold; considerable rain and sleet latter part of month. JENNIE WILLIAMS.

Wood—The farmers are beginning to plow. Stock looking well and are being turned out on the range. A. H. WISEMAN.

McAfee's Ranch—Weather has been rather cold for growing grass. Heavy storms in the mountains doing much damage to roads. G. A. McAFEE.

Lewers' Ranch—Month opened with 1 foot of snow on the ground. Plowing going on and some grain sown. Season will be later than last year. Fruit buds backward. E. R. LEWERS.

Belmont—At the close of the month leaf and fruit buds were too far advanced and we had given up all hopes of a fruit crop this year, but since April 1st it has been colder, and if we can escape the usual May freeze, we may yet be all right. At this writing (April 6th), it would seem that winter had just "set in". The snowfall in the mountains has been abundant, and the jurors in attendance upon Court from all over the county are exceedingly hopeful and predict a good year with "plenty of water". Some plowing has been done and some of the hardier vegetables have been planted in the gardens, but I fear that much of it will have to be done over again. Stock has wintered better than was expected, or at least feared; the principal losers being those who parted too freely with their hay and other fodder on account of the unusually high prices last fall at Butler (Tonopah), Nevada. W. N. GRANGER.

G. M. DYER.

It is with regret that we announce the death of our esteemed voluntary observer at Austin, Nevada, Mr. G. M. Dyer, who died March 19, 1903. In his death, the community in which he lived, and the State at large, loses a public-spirited and much respected citizen, and the Nevada Climate and Crop Service one of its most efficient and valued observers. His son, Mr. H. W. Dyer, will continue the meteorological observations at that station.

CLIMATOLOGICAL DATA FOR MARCH, 1903.

Stations.	Counties.	Elevation (feet).	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (inches).							Sky.	Prevailing direction of wind.	Observer.
				Mean.	Departure from the normal.	High-st.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (inches).	Number rainy days.	Number clear days.	Number partly cloudy days.				Number rainy days.
Northern Section.																				
Battle Mountain—1	Lander	4,511	33	41.0	+0.1	70	11	15	7	40	0.92	+0.17	0.41	3.0	6	13	9	18	SW	Agent So. Pacific Co.
Beowawe—3	Eureka	4,635	33	40.7	-0.2	66	29	18	7	—	2.26	+1.73	2.60	11.5	7	12	9	10	S	Agent So. Pacific Co.
Carlin—3	Elko	4,897	33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Agent So. Pacific Co.
Crane's Ranch†	Elko	5,350	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	W. T. Crane
Elko—1	Elko	5,063	33	36.4	+1.1	68	30	5	7	33	2.80	+1.98	1.50	22.0	9	15	10	6	SE	C. H. Sproule
Fenelon—3	Elko	6,128	16	32.2	-2.4	65	25	0	1	—	1.00	-0.51	0.30	7.0	6	9	1	21	NW	Agent So. Pacific Co.
Golconda—3	Humboldt	4,392	25	44.5	+2.0	65	11	16	2	—	0.30	-0.29	0.30	3.0	1	—	—	—	—	Agent So. Pacific Co.
Halleck—3	Elko	5,229	31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Agent So. Pacific Co.
Humboldt—1	Humboldt	4,236	32	40.6	-1.4	65	26	18	1	33	0.10	-0.52	0.05	3.5	3	19	3	9	S	Agent So. Pacific Co.
Lee	Elko	—	5	—	—	—	—	—	—	—	2.14	+1.12	0.45	26.0	12	12	6	13	SW	Miss Jennie Williams
Lovelock—1	Humboldt	3,977	12	46.6	+2.8	70	31	16	20	49	0.00	-0.18	0.00	0.0	0	21	0	10	N	Agent So. Pacific Co.
Mill City—3	Humboldt	4,225	15	42.0	+1.2	70	31	23	3	—	0.00	-0.62	0.00	0.0	0	4	0	27	—	Agent So. Pacific Co.
Palisade—1	Eureka	4,821	22	36.0	-1.6	66	31	3	7	17	0.91	+0.20	0.70	7.0	2	24	0	7	—	Agent So. Pacific Co.
Quinn River Ranch¶—1	Humboldt	4,850	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	F. M. Payne
Tecoma—1	Elko	4,812	26	32.1	-6.1	68	30	-3	1	38	0.54	+0.12	0.30	5.1	3	10	5	16	—	Agent So. Pacific Co.
Toano—3	Elko	5,975	34	32.4	-2.1	59	30	0	1	—	0.50	-0.37	0.40	4.0	2	13	9	9	—	Agent So. Pacific Co.
Wells—3	Elko	5,623	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Agent So. Pacific Co.
Winnemucca—1	Humboldt	4,432	25	38.2	-2.5	65	30	14	7	35	0.98	+0.10	0.23	5.3	12	8	7	16	NE	U. S. Weather Bureau
Wood—1	Elko	6,000	4	23.4	—	63	30	5	9	40	1.70	—	0.68	24.0	5	8	10	13	—	A. H. Wiseman
Eastern Section.		Means	—	38.2	-0.8	—	—	—	—	—	1.23	+0.46	—	8.7	5	13	5	13	S	—
Ely—2	White Pine	6,000	16	35.3	+1.2	59	30	-5	7	43	0.10	-1.93	0.05	1.0	3	13	5	13	SW	Chas. S. Grunditz
Hamilton—1	White Pine	7,977	3	30.4	—	52	23	4	8	37	2.73	—	1.78	27.3	4	7	10	14	S	Mrs. J. F. Beck
Monitor Mill||—1	White Pine	6,400	5	31.9	—	59	30	-2	6	39	0.80	—	0.26	8.8	8	9	9	13	SW	Jas. B. Orr
Central Section.		Means	—	31.9	—	—	—	—	—	—	1.21	—	—	12.4	5	10	8	13	S	—
Austin—1	Lander	6,594	15	34.0	+2.4	58	30	10	19	23	2.40	+1.02	0.80	—	10	—	—	—	—	G. M. Dyer
Eureka—1	Eureka	6,990	1	33.6	—	62	31	6	20	35	3.50	—	1.90	42.5	6	10	7	14	N	D. M. Broy
Potts—1	Nye	6,826	11	32.2	+1.8	60	31	-8	18	41	0.92	+0.09	0.30	15.2	7	6	7	18	S	Miss Bessie Potts
Western Section.		Means	—	33.3	+2.1	—	—	—	—	—	2.27	+0.56	—	28.8	8	8	7	16	S	—
Carson City—2	Ormsby	4,660	24	40.8	-0.4	66	27	16	6	42	2.07	+0.74	1.29	7.4	8	10	15	6	SW	C. W. Friend
Carson City (W. B.)—1	Ormsby	4,720	14	40.4	-0.8	65	27	15	6	39	1.56	+0.23	1.09	5.2	5	10	10	11	SW	U. S. Weather Bureau
Hot Springs—3	Churchill	4,072	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Agent So. Pacific Co.
Lewers' Ranch‡—1	Washoe	5,200	16	40.1	+0.7	65	27	12	6	37	4.67	+1.62	1.94	13.5	10	6	19	6	SW	E. R. Lewers
Martin's Ranch§—2	Douglas	4,830	5	42.8	+1.6	70	21	10	6	49	1.47	+0.14	0.60	5.5	6	17	5	9	SW	Mrs. J. H. Martin
Reno—1	Washoe	4,484	33	40.5	-0.5	64	27	18	7	36	0.53	—	0.17	—	7	12	12	7	W	State University
Verdi—3	Washoe	4,895	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Agent So. Pacific Co.
Wabuska—1	Lyon	4,347	1	41.0	—	70	11	12	6	47	1.01	—	0.57	1.5	4	16	3	12	—	J. H. Harcourt
Wadsworth—1	Washoe	4,077	32	42.8	-2.2	69	23	14	19	49	1.22	+0.91	1.00	8.2	3	9	12	10	W	Agent So. Pacific Co.
Southern Section.		Means	—	41.3	-0.3	—	—	—	—	—	2.00	+0.73	—	6.9	6	11	11	9	SW	—
Belmont—1	Nye	8,132	12	31.6	-1.9	55	30	7	18	31	1.15	+0.12	0.51	9.0	6	6	12	13	SW	W. N. Granger
Butler (Tonopah)—1	Nye	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Candelaria—2	Esmeralda	5,783	14	40.6	+0.5	66	30	19	6	28	0.23	-0.05	0.10	1.5	3	13	9	9	SE	A. G. Draper
Dyer	Esmeralda	4,835	—	40.2	—	67	11	6	7	56	0.50	—	0.25	0.0	3	20	1	10	S	G. A. McAfee
Hawthorne—1	Esmeralda	4,569	16	43.6	+3.0	70	11	17	6	35	T	-0.35	T	0.0	0	11	8	12	S	T. G. Watterson
Morey—1	Nye	7,384	—	34.8	—	62	30	1	7	42	3.00	—	1.80	24.0	5	7	21	3	S	Jas. B. Gilmore
Palmetto—2	Esmeralda	6,500	14	37.4	+1.9	67	30	5	6	43	2.88	+0.27	0.90	17.5	5	13	9	9	E	Wm. Oothout, Jr.
Rioville—1	Lincoln	—	—	59.2	—	90	30	25	2	50	0.38	—	0.14	0.0	3	—	—	—	—	Daniel Bonelli
Silver Peak—2	Esmeralda	4,382	8	43.5	—	72	30	17	7	37	—	—	—	1.0	—	16	0	15	S	Geo. A. Kincaid
Sodaville—1	Esmeralda	4,665	5	42.7	—	71	30	18	5	43	0.10	—	0.10	1.0	1	9	15	7	SE	Agent So. Pacific Co.
State Means		Means	—	41.5	+0.9	—	—	—	—	—	1.03	-0.00	—	6.0	3	12	9	10	S	—
Miscellaneous.		State Means	—	38.7	-0.1	—	—	—	—	—	1.41	+0.35	—	9.2	5	12	7	12	S	State Means
Modena (Utah)—1	Iron	5,479	2	38.0	—	63	30	8	1	36	0.74	—	0.20	3.5	7	9	12	10	SW	U. S. Weather Bureau

REFERENCES: 1, Weather Bureau maximum and minimum thermometers in use; 2, self-registering maximum and minimum thermometers, not Weather Bureau, in use; 3, means and extremes of temperature from observations by ordinary thermometers at 7 a. m., 2 p. m. and 9 p. m. A small letter placed before the name of a station or against the data in the body of the form, indicates the number of days missing from the record, for instance, "n" denotes 14 days missing. *Italic figures* indicate that the maximum or minimum occurred on several dates. T indicates trace of precipitation. All records are used in determining State and district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

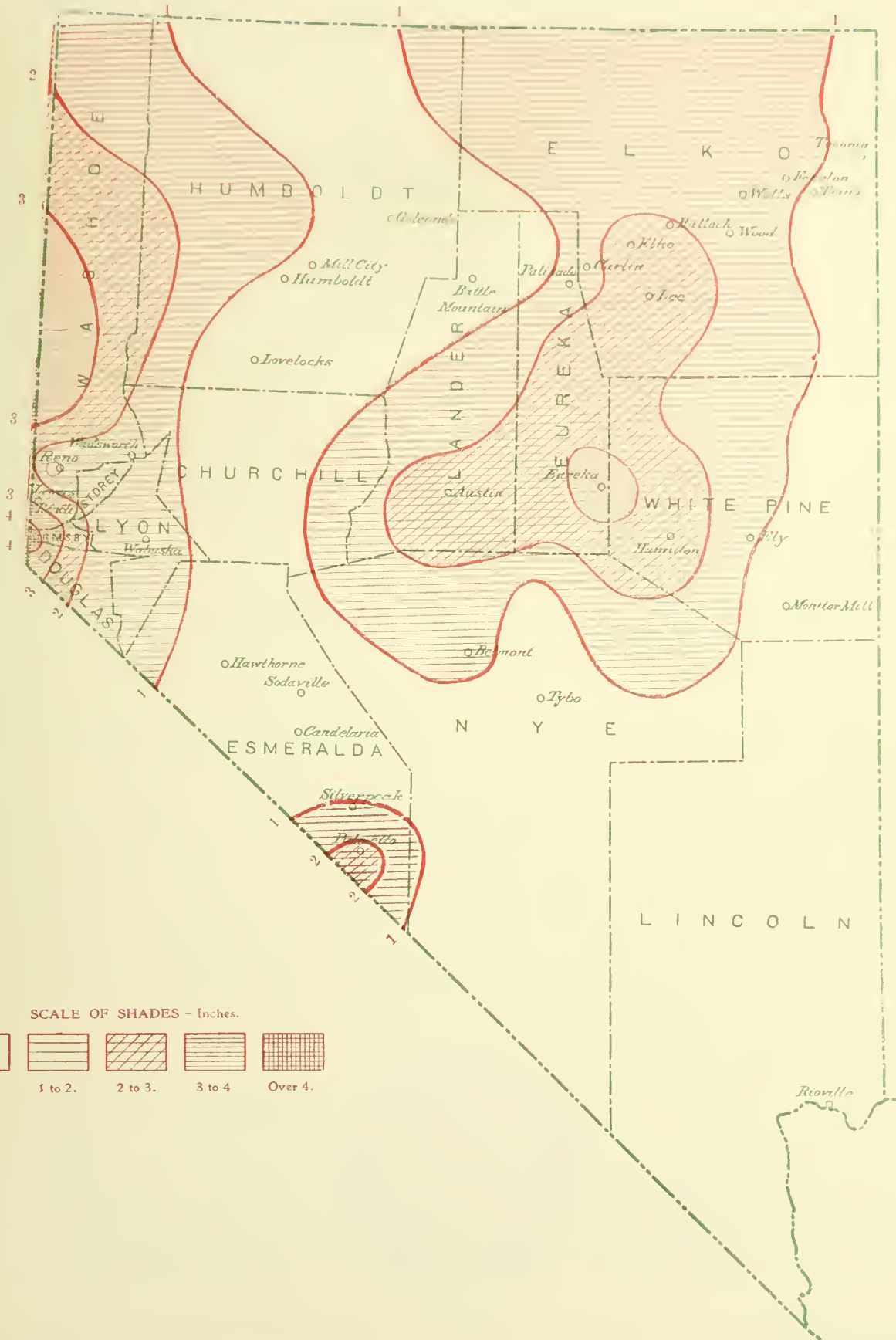
* Not considered in computing State or district means.

† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. || Postoffice—Elko. ¶ Postoffice—Amos.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MARCH, 1903.

Stations.	Day of Month.																															Monthly Means.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Austin	Max. 34	40	40	41	34	31	32	41	43	45	50	50	51	46	41	41	43	30	29	31	36	43	49	48	44	49	52	55	58	56	43.3		
Battle Mountain	Min. 15	20	24	22	17	17	14	19	21	23	30	30	32	26	24	22	21	19	16	12	19	29	35	35	32	31	32	31	33	34	24.7		
Belmont	Max. 38	40	45	40	45	42	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	55.0		
Belmont	Min. 16	20	25	25	28	20	15	15	15	32	32	42	48	40	41	38	28	23	22	25	30	27	36	34	40	46	49	49	50	55	55	30.9	
Candelaria	Max. 32	33	33	32	32	32	34	36	43	47	48	49	41	41	41	38	28	23	22	32	40	47	50	37	40	46	49	49	50	55	55	40.8	
Candelaria	Min. 15	22	22	12	14	10	18	11	16	27	31	30	29	21	21	13	17	7	13	20	26	31	29	29	22	22	36	37	36	24	27	22.3	
Candelaria	Max. 40	42	47	46	42	37	39	47	46	52	58	59	49	49	45	38	45	45	41	47	58	60	58	54	52	57	64	66	61	61	50.8		
Candelaria	Min. 22	30	27	29	24	19	23	26	23	31	34	40	35	31	28	25	25	24	19	23	30	34	35	35	36	35	40	44	42	40	38	30.5	
Carlin*	Max.																																
Carlin*	Min.																																
Carson City	Max. 48	51	45	45	36	41	48	46	53	61	59	63	54	51	50	38	44	46	60	55	64	65	63	56	57	59	66	60	59	52	42	52.5	
Carson City	Min. 21	32	35	27	26	16	17	29	24	25	46	39	34	31	22	25	22	18	17	19	25	23	24	33	36	34	39	42	45	11	31	29.0	
Carson City (W. B.)	Max. 47	49	44	44	35	40	47	51	61	60	60	60	52	47	46	37	42	43	48	55	60	63	62	55	53	57	65	59	58	52	41	50.9	
Dyer	Min. 20	32	35	27	25	15	17	33	24	26	48	41	35	32	24	26	20	18	21	25	24	27	34	37	37	37	43	44	41	31	29.8		
Dyer	Max. 36	44	45	50	47	42	50	51	55	57	67	65	63	57	57	53	50	41	52	53	57	67	65	67	52	55	55	66	63	60	47	54.5	
Elko	Min. 12	30	30	33	27	11	6	34	16	33	36	34	36	20	11	21	17	22	20	9	11	16	16	35	39	29	34	40	46	45	45	25.8	
Elko	Max. 40	35	42	44	36	37	32	40	33	48	52	51	53	56	50	45	45	50	40	40	48	54	53	58	56	58	60	60	62	68	65	48.8	
Elko	Min. 12	7	22	25	26	12	5	12	5	15	22	23	27	32	30	30	30	30	25	16	25	30	24	30	35	28	30	28	40	45	38	23.9	
Ely	Max. 35	39	35	40	34	30	38	35	46	43	50	51	48	45	43	34	34	35	33	44	46	53	49	46	53	57	55	58	59	54	44.5		
Ely	Min. 2	9	25	29	22	6	5	17	13	8	27	33	35	28	25	30	23	15	13	17	25	22	25	26	26	29	36	38	35	41	22.1		
Eureka	Max. 33	33	38	38	34	32	30	37	38	41	45	50	42	54	42	44	36	37	33	40	45	50	50	50	50	55	54	60	59	62	43.9		
Eureka	Min. 11	21	30	28	20	14	11	14	13	21	29	35	34	32	25	26	11	10	10	6	10	20	22	30	31	28	36	38	39	38	33	23.4	
Halleck*	Max.																																
Halleck*	Min.																																
Hamilton	Max. 30	35	32	36	30	28	30	37	42	49	48	42	40	40	42	41	38	26	37	47	48	50	52	49	50	49	50	48	45	52	48	41.6	
Hamilton	Min. 6	9	21	21	10	10	6	4	10	14	21	21	28	25	24	21	14	10	8	10	15	25	29	27	15	23	31	30	32	39	39	19.3	
Humboldt	Max. 41	43	38	38	41	45	40	44	58	61	60	63	51	52	54	38	48	53	45	52	55	56	60	61	65	60	60	63	65	50	50	51.7	
Humboldt	Min. 18	31	30	29	24	28	26	23	21	35	32	31	37	34	32	28	27	20	22	20	28	30	32	32	32	32	40	39	33	34	30	29.6	
Hawthorne	Max. 52	56	58	48	45	45	53	52	55	65	70	76	65	60	50	43	38	44	47	53	58	62	60	58	60	68	68	67	68	63	69	63	57.3
Hawthorne	Min. 26	32	28	29	19	17	20	25	26	30	40	41	30	26	22	25	32	23	22	23	22	32	30	32	35	35	40	38	35	41	40	29.8	
Lewers' Ranch	Max. 45	50	44	43	36	44	47	44	48	57	55	60	50	48	46	40	45	47	50	54	62	64	63	56	56	58	65	60	60	51	41	51.3	
Lewers' Ranch	Min. 13	32	32	28	26	12	14	30	20	29	42	35	35	32	26	21	19	19	21	26	27	31	35	37	37	40	40	40	38	32	32	28.9	
Lovelock	Max. 43	51	50	49	52	57	56	59	62	63	65	67	65	64	67	60	62	64	65	66	67	65	68	62	67	66	64	67	68	70	61.8		
Lovelock	Min. 29	35	34	36	37	35	37	39	43	44	45	37	38	34	26	25	25	26	26	16	16	21	24	25	25	26	28	30	32	31	35	31.5	
Martin's Ranch	Max. 48	51	53	46	41	46	51	53	58	62	68	65	55	54	53	45	47	54	54	60	70	70	68	59	64	64	70	65	70	59	45	57.0	
Martin's Ranch	Min. 21	31	35	30	23	10	15	30	24	26	43	47	34	32	22	23	18	18	18	18	24	24	24	30	34	33	37	43	45	44	33	28.7	
Monitor Mill	Max. 35	36	40	39	30	30	30	30	46	47	54	53	51	47	45	41	37	30	36	44	48	51	51	45	45	52	54	51	55	59	49	44.1	
Monitor Mill	Min. 10	22	26	22	2	2	12	4	7	24	31	32	23	22	21	16	12	5	9	13	19	18	22	28	21	27	36	35	34	33	27	19.7	
Morey	Max. 39	40	40	44	38	43	43	43	45	51	56	57	53	51	50	40	40	34	44	48	53	58	57	56	56	59	57	61	62	56	50	49.1	
Morey	Min. 5	12	23	23	19	8	1	15	9	13	21	28	33	22	23	22	15	16	14	10	18	25	23	23	26	24	29	36	36	32	33	20.6	
Palmetto	Max. 43	45	48	45	37	40	40	40	50	47	53	55	53	47	47	45	42	46	45	52	59	65	60	44	49	52	59	62	67	45	49.8		
Palmetto	Min. 12	22	29	30	21	5	10	10	14	24	36	35	36	23	25	18	24	21	12	15	22	22	32	32	32	32	40	42	42	36	39	24.9	
Palisade	Max. 37	40	44	43	44	41	37	39	45	50	54	50	53	55	60	55	52	36	38	36	55	57	56	62	60	61	59	58	64	63	66	50.6	
Palisade	Min. 8	10	15	12	14	12	3	4	10	8	7	36	28	32	30	31	22	25	16	18	20	25	27	30	29	30	29	35	34	33	34	21.5	
Potts	Max. 30	38	40	41	37	27	35	39	35	40	49	52	50	46	46	42	35	32	35	44	47	53	54	47	47								

TOTAL PRECIPITATION FOR MARCH, 1904



DAILY PRECIPITATION FOR MARCH, 1903.

Stations.	Day of Month.																															Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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Battle Mountain				.10	.20			T					.30	.10	.44		.02							.05		.03		.18	.08																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		</

T indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA :
STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1903

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR APRIL, 1903.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

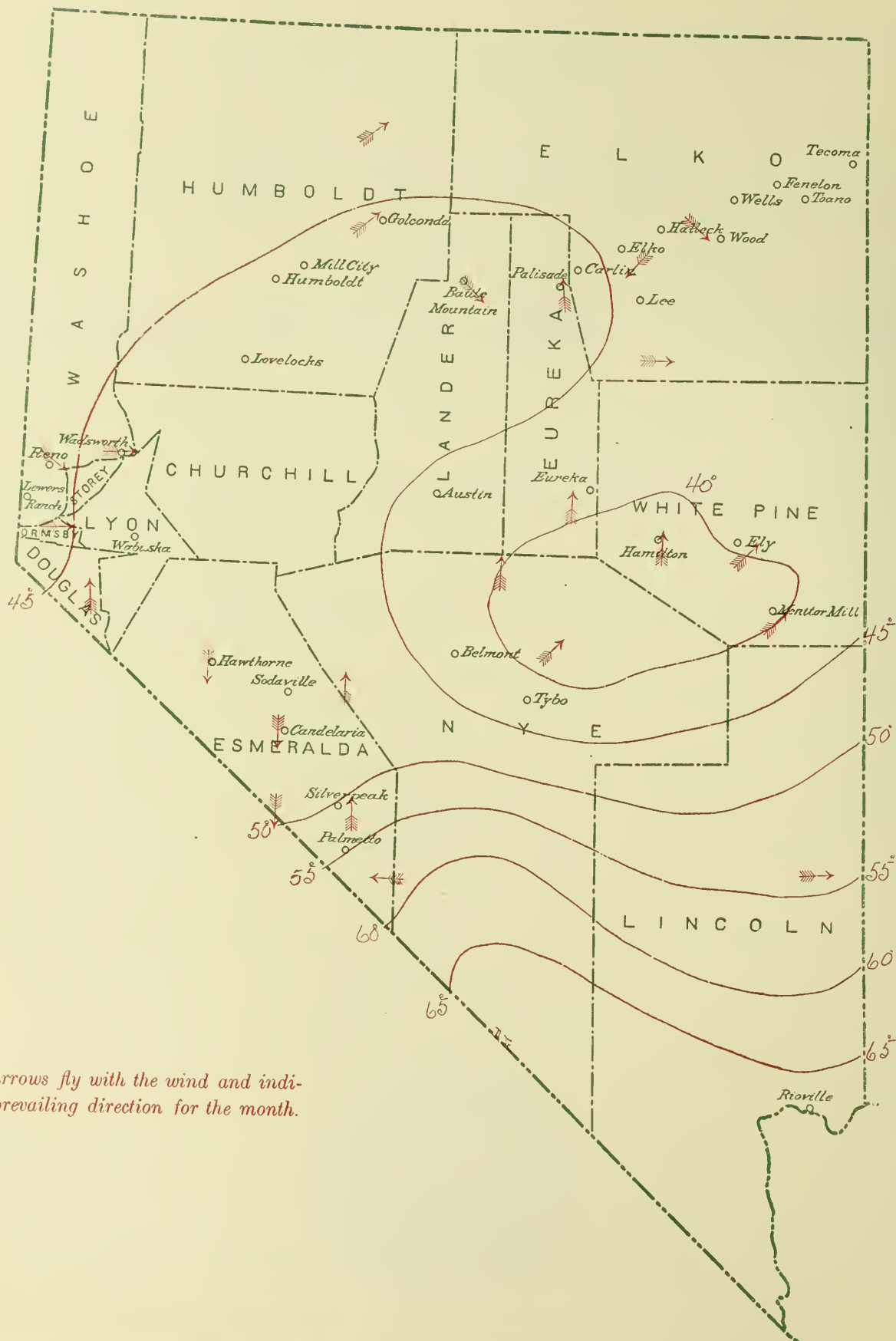
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR APRIL, 1903



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION,

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL XVII

CARSON CITY, NEVADA.

No. 4.

FARMING OPERATIONS.

The month was slightly deficient in both temperature and precipitation. Plowing and sowing progressed rapidly in all sections, but the weather during the first and second decades was much too cold for germination and growth.

During the last ten days of the month the weather and soil conditions were more favorable, and vegetation of all kinds made rapid growth. In the more southern districts early sown grain was appearing above ground, alfalfa and meadows had started nicely, and fruit trees were generally in bloom, at the beginning of the month. The outlook for a good fruit crop was unusually promising at the close of the month.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.92 inches.

The highest pressure, 30.34 inches, was recorded at Carson City, on the 3d, and the lowest, 29.50 inches, at Modena, Utah, on the 26th.

The absolute range of pressure for the State was 0.84 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the reports of thirty-eight stations, was 45.2, or about 3.1 below normal, and 0.6 lower than the mean for the corresponding month of 1902.

By sections, the means were as follows: Northern, 45.6; eastern, 37.2; central, 41.4; western, 45.1; southern, 48.8.

The highest monthly mean, 66.6, was recorded at Rioville, Lincoln County.

The lowest monthly mean, 33.2, was recorded at Hamilton, White Pine County.

The highest temperature recorded during the month was 101, at Rioville, Lincoln County, on the 24th.

The lowest temperature recorded during the month was 1, at Monitor Mill, White Pine County, on the 1st.

The absolute range of temperature for the State was 100.

The greatest local daily range of temperature at station equipped with self-registering thermometer was 60, at Caliente, Lincoln County, on the 20th, and the least 4, at Dyer, Esmeralda County, on the 1st.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 0.17 of an inch, or 0.21 of an inch below normal, and 0.28 of an inch less than the average for the corresponding month of 1902.

By sections, the averages were as follows: Northern, 0.33 of an inch; eastern, 1.13 inches; central, 1.30 inches; western, 0.48 of an inch; southern, 0.25 of an inch.

The greatest monthly amount, 1.91 inches, was recorded at Austin, Lander County, and the least, none, at a few stations.

The average depth of the snowfall, in the valleys, was 2.3 inches.

Relative Humidity.

Carson City—8 a. m., 65 per cent; 8 p. m., 45 per cent; monthly mean, 55 per cent.

Winnemucca—8 a. m., 75 per cent; 8 p. m., 39 per cent; monthly mean, 57 per cent.

Modena (Utah)—8 a. m., 65 per cent; 8 p. m., 26 per cent; monthly mean 45 per cent.

Wind and Weather.

The prevailing direction of the wind was from the southwest.

The total movement of the wind at Carson City was 5,211 miles; Winnemucca, 6,680 miles; Modena (Utah), 8,012 miles.

The maximum velocity at Carson City was 34 miles per hour, from the southwest, on the 9th; Winnemucca, 38 miles per hour, from the northwest, on the 30th, and 43 miles per hour, from the southwest, at Modena (Utah), on the 1st.

The average number of clear days was 16; partly cloudy, 9; cloudy, 5; days with .01 or more of precipitation, 6.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR APRIL DURING THE PAST FIFTEEN YEARS.

Year.	Temperature—			Average precipitation, Inches and 100ths.
	Mean.	Highest.	Lowest.	
1889	53.5	100	16	0.45
1890	49.0	96	8	0.72
1891	48.3	88	5	1.51
1892	44.9	84	6	0.62
1893	41.8	78	0	1.14
1894	47.6	90	10	0.59
1895	48.2	95	1	0.42
1896	41.7	89	0	1.00
1897	47.3	91	9	0.37
1898	51.1	103	12	0.71
1899	47.9	87	12	0.37
1900	43.8	82	10	1.98
1901	45.3	98	—2	0.59
1902	45.8	84	14	0.75
1903	45.2	101	1	0.47

CLIMATOLOGICAL DATA FOR APRIL, 1903.

Stations.	Counties.	Temperature (degrees Fahrenheit).										Precipitation (Inches).							Sky.		Observs.	
		Elevation (feet).	Length of record (years).	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number rainy days.	Preceding days.			
Northern Section.																						
Battle Mountain-1	Lander	4,511	33	46.2	-3.4	78	8	15	10	47	0.30	-0.51	0.20	0.0	2	4	0	26	SW	Agent So. Pacific Co.		
Geowawe-3	Eureka	4,685	33	49.2	+0.3	82	21	21	12		0.00	-0.61	0.00	0.0	0	12	9	9	S	Agent So. Pacific Co.		
Carlin-3	Elko	4,897	33																	Agent So. Pacific Co.		
Crane's Ranch†	Elko	5,350	16								0.82	-0.35	0.21		6	14	1	12	W	W. T. Crane		
Elko-1	Elko	5,063	33	43.5	-1.9	69	21	15	11	39	0.50	+0.06	0.15		5	17	5	8	SE	C. H. Sproule		
Fenelon-3	Elko	6,128	16	42.4	-5.0	80	23	17	11							17	6	7	SW	Agent So. Pacific Co.		
Golconda-3	Humboldt	4,392	25	47.1	-1.1	75	21	19	2		0.22	-0.38	0.22	2.0	1	19	6	5	SW	Agent So. Pacific Co.		
Halleck-3	Elko	5,229	31	42.1	-1.0	74	25	24	11					0.5		14	9	7	SW	Agent So. Pacific Co.		
Humboldt-1	Humboldt	4,236	32	47.6	-2.7	76	30	25	5	41	0.13	-0.54	0.10	0.0	2	18	4	8		Agent So. Pacific Co.		
Lee	Elko		5																	Miss Jennie Williams		
Lovelock-1	Humboldt	3,977	12	49.3	-2.5	70	25	26	4	35	0.78	+0.72	0.78	0.0	1					Agent So. Pacific Co.		
Mill City-3	Humboldt	4,225	15	47.4	-1.9	74	30	20	1		0.00	-0.54	0.00	0.0	0	22	0	8		Agent So. Pacific Co.		
Palisade-1	Eureka	4,821	22	46.5	-1.4	91	26	22	29	58	0.00	-0.68	0.00	0.0	0	20	0	10		Agent So. Pacific Co.		
Quinn River Ranch-1	Humboldt	4,850	2	39.8		75	21	10	11	45	0.33		0.30	0.0	2	17	8	5	SW	F. M. Payne		
Tecoma-1	Elko	4,812	26	43.6	-5.2	78	26	15	11	41	T	-0.62	T	0.0	0	22	1	7		Agent So. Pacific Co.		
Toano-3	Elko	5,975	31	43.4		82	26	23	1		0.20		0.10	2.0	2	25	4	1		Agent So. Pacific Co.		
Wells-3	Elko	5,623	32	49.5	-0.0	82	4	22	1		0.00	-0.63	0.00	0.0	0					Agent So. Pacific Co.		
Winnemucca-1	Humboldt	4,432	25	43.4	-3.9	74	24	16	11	36	0.59	-0.37	0.33	3.4	4	15	4	11	SW	U. S. Weather Bureau		
Wood-1	Elko	6,000	4	41.8		76	25	11	12	48	1.02		0.42	0.0	4	13	16	1		A. H. Wiseman		
Means				45.6	-2.8						0.33	-0.37		0.6	2	17	5	8	SW			
Eastern Section.																						
Ely-1	White Pine	6,000	16	41.5	-1.5	75	25	12	5	41	1.16	-0.01	0.90	6.0	4	19	7	4	SW	Chas. S. Grunditz		
Hamilton-1	White Pine	7,977	3	33.2		60	8	8	11	38				2.5	2	18	7	5	S	Mrs. J. F. Beck		
Monitor Mill-1	White Pine	6,400	5	37.0		71	24	1	1	47	1.10		0.82	12.0	4	9	9	12	SW	Jas. B. Orr		
Means				37.2	-1.5						1.13			6.8	3	15	8	7	SW			
Central Section.																						
Austin-1	Lander	6,594	15	41.4	-2.8	68	24	16	5	28	1.91	+0.63	0.78		6					H. W. Dyer		
Eureka-1	Eureka	6,990	1	43.0	-5.4	74	24	12	11	49	1.10	+0.14	0.50	15.0	3	15	5	10	S	D. M. Broy		
Potts-1	Nye	6,826	11	39.8	-6.3	75	24	10	2	46	0.90	+0.06	0.40	8.0	3	8	6	16	S	Miss Bessie Potts		
Means				41.4	-4.8						1.30	+0.28		11.5	4	12	5	13	S			
Western Section.																						
Carson City-2	Ormsby	4,600	24	43.8	-4.2	76	24	18	2	42	0.19	-0.68	0.07	0.5	4	21	9	0	SW	C. W. Friend		
Carson City (W. B.)-1	Ormsby	4,720	14	43.4	-4.6	72	24	16	2	37	0.50	-0.37	0.47	4.5	3	19	8	3	W	U. S. Weather Bureau		
Fallon-1	Churchill																					
Lewers' Ranch-1	Washoe	5,200	16	44.4	-2.5	76	24	18	2	39	1.08	-0.11	0.60	4.5	4	18	11	1	SW	E. R. Lewers		
Martin's Ranch-1	Douglas	4,830	5	45.6	-2.4	85	23	12	2	55	0.53	-0.34	0.53	2.0	1	21	6	3	SW	Mrs. J. H. Martin		
Reno-1	Washoe	4,484	33	43.7	-3.1	74	24	19	2	38	1.04	+0.63	1.04	0.6	1	22	6	2	NW	State University		
Verdi-3	Washoe	4,895	14																	Agent So. Pacific Co.		
Waduska-1	Lyon	4,347	1	46.7		78	22	17	12	47	0.05		0.05	0.0	1	24	2	4		J. H. Harcourt		
Wadsworth-1	Washoe	4,077	32	47.8	-4.9	81	24	18	12	50	0.00	-0.35	0.00	0.0	0	17	4	9	W	Agent So. Pacific Co.		
Means				45.1	-3.5						0.48	-0.20		1.7	2	20	7	3	SW			
Southern Section.																						
eBelmont-1	Nye	8,132	12	40.9	-1.5	69	24	14	10	34	0.26	-0.54	0.20	2.0	2	12	6	9	SW	W. N. Granger		
eCandelaria-1	Esmeralda	5,783	14	45.7	-3.9	75	24	19	11	33	0.12	-0.37	0.07	0.7	2	16	4	7	N	A. G. Draper		
Caliente-1	Lincoln			51.0		88	28	19	6	60	0.10		0.10	0.0	1					E. W. Clark		
Hawthorne-1	Esmeralda	4,569	16	46.9	-5.6	78	26	19	6	33	0.10	-0.10	0.05	0.0	2	15	4	11	N	T. G. Watterson		
McAfee's Ranch-1	Esmeralda	4,835		44.8		80	25	14	6	51	0.01		0.01	0.0	1					G. A. McAfee		
Morey-1	Nye	7,384																		Jas. B. Gilmore		
Palmetto-1	Esmeralda	6,500	14	43.2	-0.3	76	24	15	6	43	1.38	+0.52	0.45	10.0	4	19	7	4	E	Wm. Oothout, Jr.		
Rioville-1	Lincoln			66.6		101	24	37	6	51	0.05		0.04	0.0	2					Daniel Bonelli		
Silver Peak-1	Esmeralda	4,382	8	49.8		82	24	26	6	40					2	22	0	8	S	Geo. A. Kincaid		
Sodaville-1	Esmeralda	4,665	5	50.2		86	24	21	5	42	T		T	0.0	0	19	8	3	SE	Agent So. Pacific Co.		
Means				48.8	-2.8						0.25	-0.12		1.6	2	19	5	6	N			
State Means				45.2	-3.1						0.47	-0.21		2.3	2	17	6	7	SW	State Means		
Miscellaneous.																						
Modena (Utah)-1	Iron	5,470	2	44.0		76	24	18	13	44	0.61		0.32		6	16	9	5	W	U. S. Weather Bureau		

REFERENCES: 1, Weather Bureau maximum and minimum thermometers in use; 2, self-registering maximum and minimum thermometers, not Weather Bureau, in use; 3, means and extremes of temperature from observations by ordinary thermometers at 7 a. m., 2 p. m. and 9 p. m. A small letter placed before the name of a station or against the data in the body of the form, indicates the number of days missing from the record, for instance, "n" denotes 14 days missing. *Italic figures* indicate that the maximum or minimum occurred on several dates. T indicates trace of precipitation. All records are used in determining State and district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

* Not considered in computing State or district means.

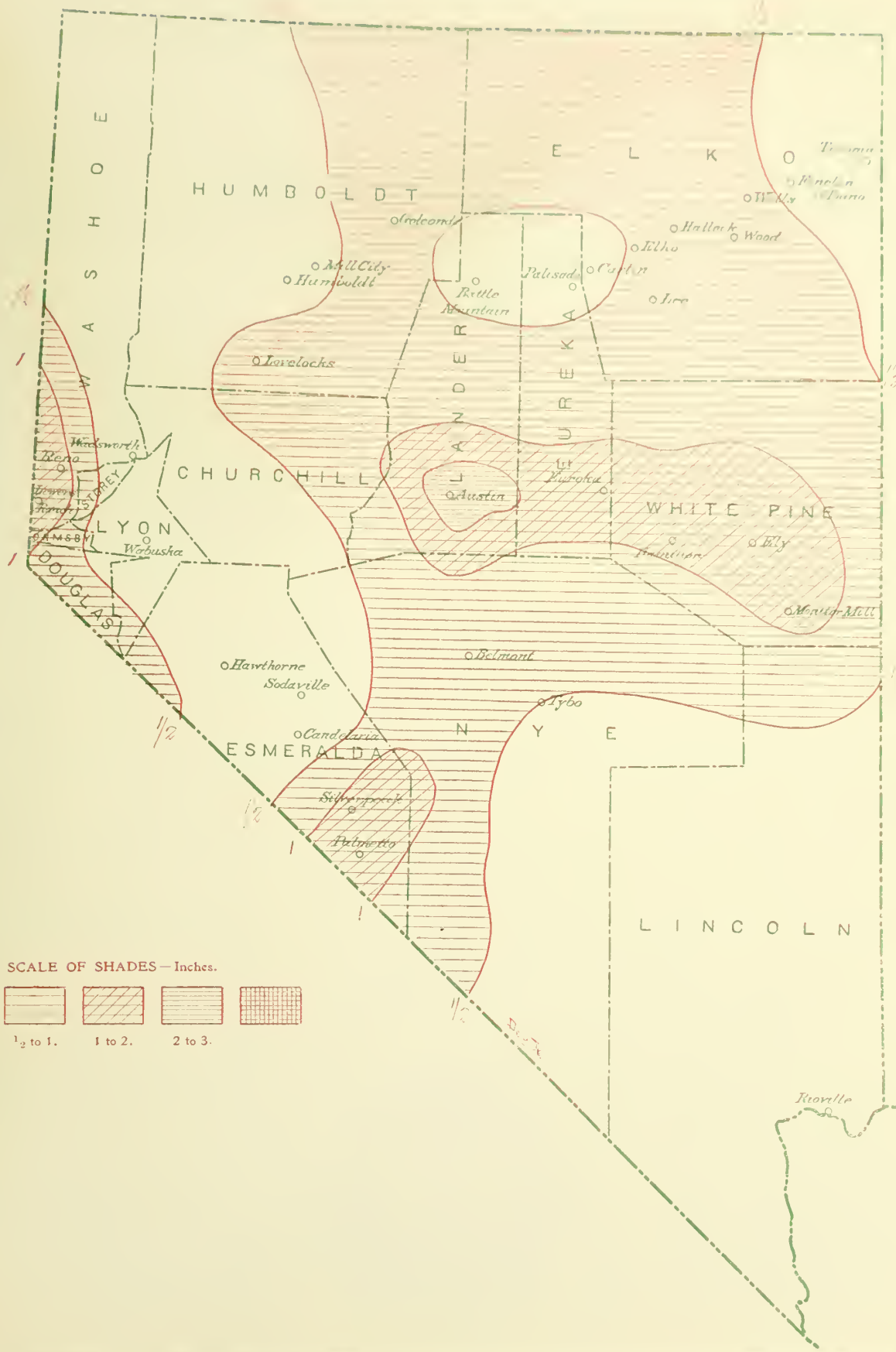
† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. || Postoffice—Elko. ¶ Postoffice—Amos.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR APRIL, 1903.

Stations.	Day of Month.																															Monthly means.		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Austin	Max. 50	37	50	48	44	49	55	60	59	50	42	52	50	44	45	46	42	47	52	54	61	63	66	68	68	68	58	42	49	58	65	52.5		
Battle Mountain	Min. 58	24	60	58	50	58	70	78	70	55	16	29	26	24	28	31	30	30	68	68	76	68	68	68	68	68	68	26	26	30	40	30.4		
Belmont	Max. 55	26	58	28	28	30	33	40	33	15	25	15	25	20	20	30	30	30	30	30	30	25	25	25	25	25	32	32	25	30	35	27.6		
Caliente	Min. 23	55	45	48	57	63	66	56	14	14	21	24	24	24	24	24	24	24	33	33	33	36	37	37	37	37	37	45	54	64	36	52.9		
Candelaria	Max. 60	38	60	60	74	75	76	76	30	30	28	30	29	30	26	20	20	20	32	32	32	32	32	32	32	32	83	86	88	84	83	73.3		
Carson City	Max. 46	45	65	61	42	56	61	63	63	38	19	22	21	28	22	22	22	22	35	35	35	35	35	35	35	35	35	41	43	44	40	33.5		
Carson City (W. B.)	Min. 32	44	37	48	47	60	67	71	60	44	19	22	21	28	22	22	22	22	35	35	35	35	35	35	35	35	35	41	43	44	40	29.5		
Carson City (W. B.)	Max. 37	43	56	46	45	39	65	70	58	40	47	54	54	46	54	48	50	51	62	62	62	62	62	62	62	62	62	62	62	62	62	62	56.0	
Elko	Min. 29	16	24	34	24	24	31	35	39	28	22	25	23	31	23	36	36	26	43	29	42	42	42	42	42	42	42	42	42	42	42	42	30.0	
Elko	Max. 65	65	50	48	50	45	60	57	65	42	45	45	57	60	60	50	58	61	60	52	63	65	65	65	65	65	56	57	60	63	63	56.9		
Ely	Min. 35	26	25	30	28	18	33	40	33	15	16	16	16	25	30	24	38	35	37	34	30	32	32	32	32	32	32	32	32	32	32	32	30.1	
Ely	Max. 45	36	48	52	46	47	58	63	63	49	41	41	55	56	52	54	43	50	56	60	66	70	73	74	75	65	63	52	57	69	69	56.0		
Eureka	Min. 30	16	15	29	12	15	28	30	27	60	31	45	54	54	50	50	51	65	63	59	35	41	35	42	74	73	72	73	74	70	69	59.1		
Eureka	Max. 55	35	48	50	49	50	60	65	65	60	31	45	54	54	50	50	51	65	63	59	35	41	35	42	74	73	72	73	74	70	69	59.1		
Halleck*	Min. 29	19	22	34	39	27	12	18	38	30	25	30	34	36	33	33	33	37	35	30	29	35	36	36	36	36	36	36	36	36	36	36	26.8	
Halleck*	Max. 45	46	48	40	42	40	56	64	48	38	38	38	64	64	48	44	50	46	48	48	60	70	68	60	68	74	42	24	25	24	25	50.5		
Hamilton	Min. 36	28	30	34	30	34	32	40	32	42	32	24	24	30	32	34	28	38	36	30	38	40	40	46	46	46	46	46	46	46	46	46	45.2	
Hamilton	Max. 42	39	46	48	35	42	52	60	52	45	35	42	50	46	44	46	44	45	44	46	44	46	44	46	46	46	46	46	46	46	46	46	45.2	
Humboldt	Min. 24	21	20	26	9	10	15	24	30	8	10	12	17	19	21	22	20	19	22	20	23	25	26	27	29	28	25	25	24	26	21	21	21	21
Humboldt	Max. 50	56	58	52	50	64	68	71	60	53	49	52	56	56	56	56	56	60	65	67	68	71	73	75	76	70	58	62	70	73	76	61.9		
Hawthorne	Min. 32	27	31	30	25	30	37	40	38	30	25	30	34	36	33	33	33	37	35	30	29	35	36	36	36	36	36	36	36	36	36	36	33.4	
Hawthorne	Max. 60	40	50	55	50	45	56	65	72	66	30	45	52	65	54	58	53	58	58	63	63	63	63	63	63	63	63	63	63	63	63	63	60.0	
Levers' Ranch	Min. 36	30	26	30	25	19	30	35	43	41	23	23	23	29	32	35	35	35	30	32	41	35	41	46	45	55	58	58	64	71	68	33.8		
Levers' Ranch	Max. 40	43	54	55	46	60	67	70	67	50	50	56	67	55	50	50	50	54	63	60	65	67	72	76	65	55	53	58	64	71	68	59.1		
Lovelock	Min. 30	18	21	21	20	22	32	32	40	32	19	24	30	24	30	25	33	33	26	25	40	44	43	48	37	37	37	37	37	37	37	37	37	37
Lovelock	Max. 67	62	64	60	61	58	61	64	63	63	63	62	60	62	61	60	65	67	65	63	65	67	68	69	70	64	63	60	68	67	63.8			
Martin's Ranch	Min. 41	31	29	26	32	34	35	36	40	32	35	31	31	31	31	31	32	36	37	34	38	42	43	40	41	40	33	28	36	41	34.8			
Martin's Ranch	Max. 39	48	61	54	52	62	73	77	45	64	56	60	59	55	58	55	58	60	69	68	74	74	85	83	72	61	63	68	73	75	63.7			
McAfee's Ranch	Min. 30	12	22	36	24	22	27	31	33	29	18	22	21	29	19	19	19	22	24	22	28	31	30	34	37	31	34	24	29	39	27	27.4		
McAfee's Ranch	Max. 40	46	55	67	50	60	70	72	69	64	50	56	60	56	55	49	55	60	61	66	60	76	77	78	80	71	58	57	71	71	62.3			
Monitor Mill	Min. 36	30	25	34	21	14	21	21	21	20	42	30	23	23	18	17	35	42	49	22	24	26	30	35	31	36	28	26	33	33	33	27.2		
Monitor Mill	Max. 30	36	49	50	32	45	58	61	50	45	40	40	51	53	50	48	47	49	50	55	63	68	70	71	70	63	46	50	65	64	52.6			
Morey	Min. 1	9	13	3	10	25	26	29	35	13	10	12	20	21	22	26	28	25	29	29	34	29	27	36	30	30	17	16	24	30	21.5			
Morey	Max. 54	48	55	60	42	55	66	66	66	58	49	52	54	52	50	46	52	55	55	59	67	73	73	76	76	70	68	48	62	71	73	59.2		
Palmetto	Min. 32	29	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	
Palisade	Max. 42	45	46	48	50	52	55	61	58	56	52	50	55	61	59	62	60	65	68	70	72	84	81	79	82	91	52	60	73	81	81	62.3		
Potts	Min. 31	27	25	25	30	30	36	40	33	51	39	47	53	51	48	50	41	53	57	59	66	67	71	75	70	75	49	48	50	60	60	30.7		
Potts	Max. 48	50	56	52	35	50	59	65	63	51	39	47	53	51	48	50	41	53	57	59	66	67	71	75	70	75	49	48	50	60	60	55.1		
Quinn River Ranch	Min. 35	10	12	33	17	15	25	28	32	29	15	12	17	19	20	20	20	20	27	32	32	32	32	32	32	32	32	32	32	32	32	24.5		
Reno	Max. 41	41	57	48	44	59	65	70	59	41	42	42	42	42	42	42	42	42	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	
Reno	Min. 24	19	25	34	23	23	30	35	41	26	21	25	25	25	26	21	34	34	29	25	45	60	66	68	60	60	60	65	65	70	65	56.8		
Rioville	Max. 76	74	81	80	80	81	86	93	85	82	80	71	83	83	81	82	81	81	87	87	91	99	100	100	100	100	100	100	100	100	100	100	100	100
Rioville	Min. 59	52	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	49	52	46	48	50	56	56	56	56	56	56	56	56	56	56	56
Silver Peak	Max. 43	48	62	50	42	53	60	75	64	52	55	63	58	60	65	60	65	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66
Silver Peak	Min. 37	38	35	40	38	26	36	40	33	29	43	32	27	28	31	32	31	34	38	46	39	40	45	41	45	41	52	55	65	74	80	80	80	80
Sodaville	Max. 54	54	59	57	46	61	70	77	68	56	49	60	67	60	61	56	58	66	68	72	78	79	83	86	86	86	86	86	86	86	86	86	86	86
Sodaville	Min. 33	26	37	26	21	30	34	46	43	25	22	25	25	25	25	25	25	30	30	34	42	42	46	54	40	40	34	26	33	37	49	49	49	49
Tecoma	Max. 59	47	45	55	45	46	47	55	70	70	46	58	45	45	45	45	45	45	58	58	60	68	71	73	74	74	74	74	74	74	74	74	74	74
Tecoma	Min. 37	28	29	37	26	18	21	26	31	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
Wabaska	Max. 42	52	65	50	54	60	73	68	48	48	55	64	56	56	56	56	62	65	70	76	76	78	75	78	75	78	72							

*Extremes of temperature from readings of ordinary thermometer at 7 a. m., 2 p. m. and 9 p. m.

TOTAL PRECIPITATION FOR APRIL, 1903



SCALE OF SHADES—Inches.



DAILY PRECIPITATION FOR APRIL, 1903.

Stations.	Day of Month.																															Total.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Northern Section.																																
Battle Mountain	.10								.20																							.30
Beowawe																																.00
Carlin								.05	.13								.18	.24														.11
Crane's Ranch								T		.10	.15			.05						T								.10	.10			.82
Elko																																.50
Fenelon	*	.22							T																							.22
Goconda															T																	
Halleck															T																	.05
Humboldt	.10	.03															T									T						.01
Lee																																
Lovelock	.78																															.78
Mill City																																.00
Palisade																																.00
Quinn River Ranch																T																
Tecoma																																T
Toano									T									.10														.20
Wells																																.00
Winnenuca	.33								T	.10	.42				T		T	.06														.59
Wood	.39																.19															1.02
Eastern Section.																																
Ely	.90			.06						.05							.15															1.16
Hamilton										T						.25	T															
Monitor Mill	.82			.13						.07							T	.08			T											.10
Central Section.																																
Austin	.55	.02							.08	.18				.30			.78	T														1.91
Eureka	.50									.10							.50															1.10
Potts	.40									.20							.30		T													.90
Western Section.																																
Carson City (W. B.)	.47									.01							.02															.50
Lewers' Ranch	.60									T	.22					.02	.24															1.08
Martin's Ranch																																.53
Reno	1.04															T		T														1.04
Verdi																																
Wabaska	.05																															.05
Wadsworth																																.00
Southern Section.																																
Belmont										.06							.20															.26
Candelaria	.07								T					T			.05															.12
Caliente	.10												T																			.10
Hawthorne									.05								.05															.10
McAfee's Ranch	T													T			T	.01														.01
Miscellaneous.																																
Morey																																
Palmetto	.38								T	T				.45		.35	.20	T														1.38
Rioville	.01																.04															.05
Silver Peak																																
Sodaville	T																T															T
Miscellaneous.																																
Modena (Utah)	.03	.32			.04						T						.14	.02												.06		.61

T indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA :

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1903

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR MAY, 1903.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

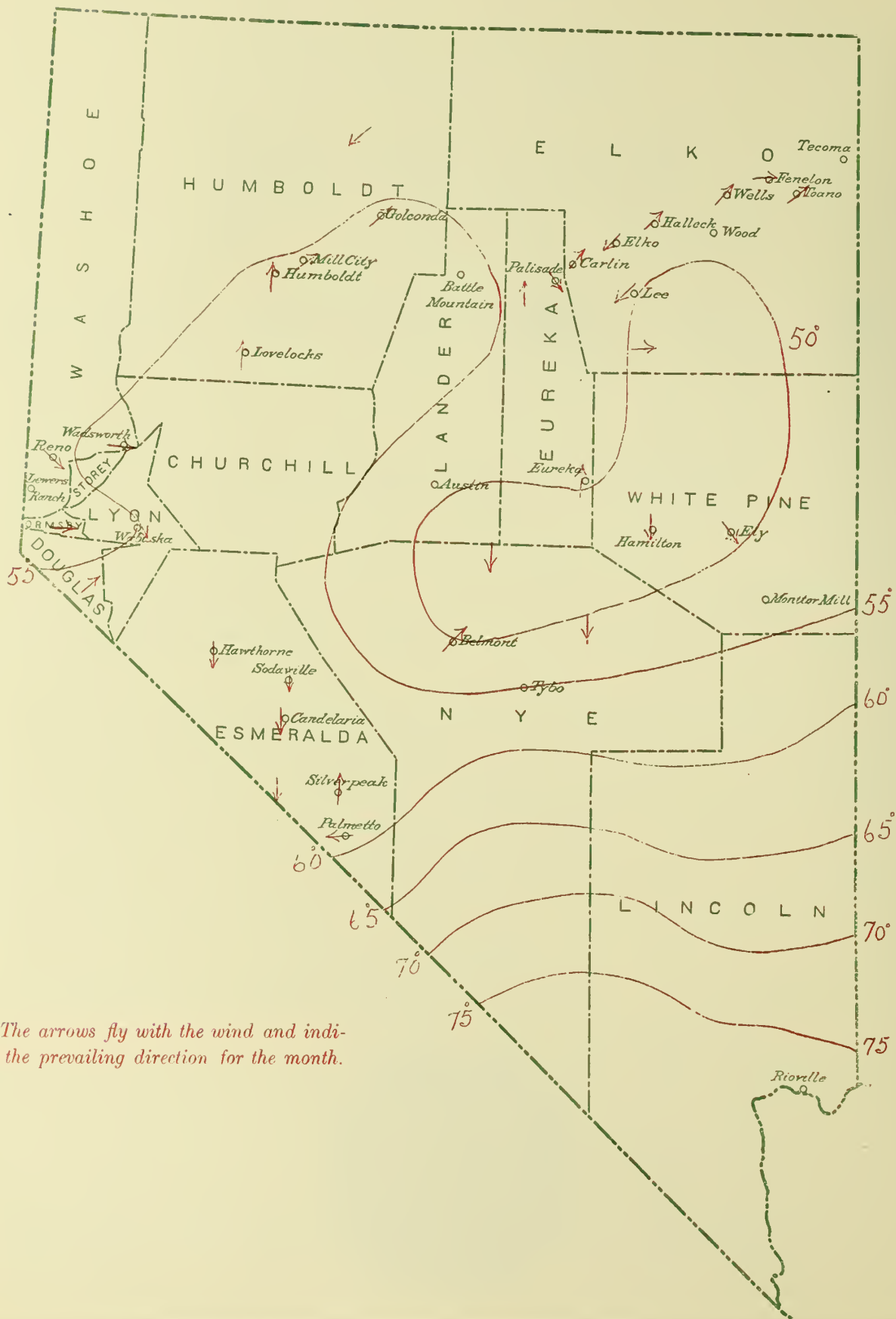
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR MAY, 1903



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION,

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL. XVII.

CARSON CITY, NEVADA.

No. 5.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.87 inches.

The highest pressure, 30.19 inches, was recorded at Winnemucca, on the 2d, and the lowest, 29.25 inches, at Modena, Utah, on the 16th.

The absolute range of pressure for the State was 0.94 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, as determined from the reports of thirty-two stations, was 54.1, or about 2.1 below normal, and 0.4 higher than the mean for the corresponding month of 1902.

By sections, the means were as follows: Northern, 53.6; eastern, 42.7; central, 50.0; western, 55.0; southern, 57.6.

The highest monthly mean, 75.5, was recorded at Rioville, Lincoln County.

The lowest monthly mean, 36.0, was recorded at Hamilton, White Pine County.

The highest temperature recorded during the month was 106, at Rioville, Lincoln County, on the 30th.

The lowest temperature recorded during the month was 15, at Potts, Nye County, on the 17th.

The absolute range of temperature for the State was 91.

The greatest local daily range of temperature at stations equipped with self-registering thermometers was 62, at Battle Mountain, Lander County, on the 30th, and the least, 4, at Wadsworth, Washoe County, on the 22d.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 0.70 of an inch, or 0.30 of an inch below normal, and 0.33 of an inch in excess of the average for the corresponding month of 1902.

By sections, the averages were as follows: Northern, 0.68 of an inch; eastern, 2.55 inches; central, 1.32 inches; western, 0.10 of an inch; southern, 0.54 of an inch.

The greatest monthly amount, 2.92 inches, was recorded at Hamilton, White Pine County, and the least, none, at five stations.

The average depth of the snowfall, in the valleys, was 2.4 inches.

Relative Humidity.

Carson City—8 a. m., 67 per cent; 8 p. m., 36 per cent; monthly mean, 52 per cent.

Winnemucca—8 a. m., 68 per cent; 8 p. m., 28 per cent; monthly mean, 48 per cent.

Modena (Utah)—8 a. m., 52 per cent; 8 p. m., 22 per cent; monthly mean, 37 per cent.

Wind and Weather.

The prevailing direction of the wind was from the south west.

The total movement of the wind at Carson City was 5,327 miles; Winnemucca, 6,575 miles; Modena (Utah), 7,721 miles.

The maximum velocity at Carson City was 42 miles per hour, from the west, on the 15th, Winnemucca, 46 miles per hour, from the southwest, on the 15th, and 48 miles per hour, from the southwest, at Modena (Utah), on the 16th.

The average number of clear days was 16; partly cloudy, 7; cloudy, 8; days with .01 or more of precipitation, 3.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR MAY DURING THE PAST FIFTEEN YEARS.

Year.	Temperature			Average Precipitation, Inches and 100ths.
	Mean.	Highest.	Lowest.	
1889	57.8	106	20	1.44
1890	59.9	105	23	1.05
1891	54.7	95	21	2.43
1892	53.8	100	13	1.17
1893	52.6	98	18	0.41
1894	56.3	95	25	0.80
1895	56.1	105	18	0.55
1896	48.2	108	5	2.03
1897	60.0	99	12	0.59
1898	51.8	93	20	1.84
1899	49.7	96	10	0.68
1900	56.6	101	20	0.77
1901	56.2	94	19	0.86
1902	53.7	102	16	0.37
1903	54.1	106	15	0.70

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Lightning—Belmont, 20th.

Dense Fog—Belmont, 24th; Palmetto, 23d.

Lunar Halos—Carson City, 6th, 7th, 9th.

Solar Halos—Winnemucca, 1st.

Hail—Belmont, 23d, 24th; Lee, 20th, 21st; Morey, 17th; Candelaria, 20th; Carson City, 23d; Potts, 16th, 17th; Reno, 16th, 23d; Hamilton, 16th, 17th, 20th, 21st; Modena (Utah), 21st, 26th.

Thunderstorms—Beowawe, 24th, 25th; Candelaria, 20th; Reno, 31st; Sodaville, 24th; Fenelon, 12th; Martin's Ranch, 30th; Potts, 24th; Morey, 21st, 22d, 23d, 24th; Modena (Utah), 16th, 25th.

High Winds—Belmont, 12th, 13th, 16th; Candelaria, 13th, 14th, 17th; Morey, 13th; Palmetto, 13th, 14th, 16th, 17th, 21st; Potts, 6th, 12th, 16th, 17th; Reno, 6th, 16th; Silver Peak, 16th, 17th; Winnemucca, 15th; Modena (Utah), 16th; Carson City, 15th, 16th.

Killing Frost—Caliente, 25th; Goleconda, 18th; Dyer, 18th, 19th; Reno, 18th, 21st; Sodaville, 17th; Wood, 26th; Lee, 19th, 20th, 21st; Belmont, 16th, 17th, 21st, 23d, 24th; Palmetto, 15th, 17th, 18th, 19th; Potts, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th; Winnemucca, 15th, 23d; Modena (Utah), 24th.

OBSERVERS' REMARKS.

LEE—Very cold weather for May. An unusually backward season.
JENNIE WILLIAMS.

WOOD—It has been a very cold month, except the last few days, which were quite warm. Crops generally doing well.
A. H. WISEMAN.

RIOVILLE—Below average for the month of May in warmth, but more windy than usual.
DANIEL BONELLI.

GOLCONDA—Light snow fell on the mountains on the 16th, 17th and 18th. Patches of snow still lay on the mountains. Waterflow continues good.
L. L. MUSHETT.

DYER—The frost on the 18th and 19th did not do much damage to crops; some fruit and berries were killed. Hay ready to cut at the close of the month.
G. A. MCAFEE.

RENO—Very high wind on the 6th from the southwest, and on the 16th from the northeast. Light thunderstorm on the afternoon of the 31st. Hailstorms on the 16th and 23d.
ALFRED DOTEN.

WEATHER AND CROPS.

Week ending May 4th—Reports of correspondents for the week ending May 4, 1903, indicate that the weather conditions of the past seven days have been generally favorable to farming interests in most districts throughout the State. Heavy frost occurred the early part of the week, but caused little or no damage. In the eastern part of the State the weather has been cold and windy, with rain and snow in some localities. Spring seeding is nearing completion, except in Elko and White Pine Counties, where the work is well under way and progressing rapidly. Grain, grass and alfalfa made rapid growth during the last few days of the week, when warm, sunny weather prevailed. Fruit trees are mostly in bloom and in excellent condition. Prospects are favorable for an abundance of all kinds of fruit this year. Range feed is fairly good and live stock are improving considerably.

Week ending May 11th—Exceptionally fine growing weather prevailed throughout the State during the past

seven days. The temperature averaged several degrees above normal during the greater part of the week, and the weather was warm and clear in nearly all sections. There was a general absence of frost and precipitation in farming districts. The growing crops made very rapid growth and are reported to be in excellent condition in all parts of the State. Grain seeding is about finished, and the planting of potatoes is now progressing rapidly. Fruit prospects continue excellent, as the trees are loaded down with bloom and buds. Range feed is getting good, and cattle are improving in condition. Early vegetables are plentiful in many districts. The harvesting of the first crop of alfalfa is under way in Lincoln County.

Week ending May 18th—The temperature throughout the State was several degrees below normal during the latter part of the week, and the weather was generally cloudy in most districts. The week opened warm and closed unseasonably cold, with severe frost on two or three mornings. Light snow fell in many localities on the 16th, and high winds were somewhat general over the State on the 13th, 15th and 16th. The hay and grain crops made slow growth during the week on account of cold north winds and low night temperatures. Frost damaged strawberries and early garden truck to some extent, but the fruit buds appear to have sustained little or no injury and the trees are reported to be in excellent condition. In most districts spring seeding is about over for the season, and the planting of potatoes is now in progress. An improvement in the condition of live stock is reported by most correspondents. Grasshoppers appear to be numerous in Paradise Valley, Humboldt County, and are said to be doing some damage to the grain crops. In the southeast section of the State barley and wheat are heading out and the first crop of alfalfa is being cut and stacked.

Week ending May 25th—The past week was characterized by unseasonably cold weather, more than the average amount of cloudiness, and light to heavy showers in many parts of the State. Considerable snow fell over the State on the 21st, the falls being heaviest in Elko and White Pine Counties. High winds and low night temperatures were also prominent features of the week's weather. Wind and cloudiness at night prevented the occurrence of damaging frosts. High winds and sandstorms in Lincoln County on the 17th did a great deal of damage to the growing crops, fruit trees, grape vines and ditches. Crops, as a rule, made slow growth during the past week on account of unfavorable weather conditions. Grain looks well and is reported in thriving condition. The copious showers of the week greatly benefited alfalfa, range feed and meadows. Potato planting is in progress and some of the early planted are up and doing well. Early garden vegetables are reported to be making satisfactory growth. Reports concerning the fruit crop are very favorable.

AVERAGE HOURLY WIND MOVEMENT FOR MAY, 1903.
75th Meridian Time.

Station.	1 a.m.	2	3	4	5	6	7	8	9	10	11	12 noon	1 p.m.	2	3	4	5	6	7	8	9	10	11	12 midn't	For the month.
Carson City	7.0	6.4	5.3	4.8	4.5	4.5	4.1	3.9	3.9	3.8	4.3	5.5	5.8	6.4	8.2	9.2	10.2	10.8	11.6	11.7	12.1	11.5	9.3	7.2	7.2
Winnemucca	9.4	8.6	7.8	8.0	7.5	6.9	6.4	6.5	6.5	7.4	8.0	8.7	8.9	9.5	9.8	10.4	11.5	12.3	11.5	11.6	10.4	8.6	7.9	8.9	8.8
Modena (Utah)	7.8	8.7	8.0	8.2	7.7	7.1	6.8	7.5	7.0	7.0	8.1	10.6	12.2	13.3	13.8	13.7	14.6	14.9	14.4	14.5	12.8	12.7	9.2	8.3	10.4

PREVAILING HOURLY WIND DIRECTION FOR MAY, 1903.

Carson City	NW	NW	NW	NW	NW	S	S	N	S	S	S	SE	SE	SE	SE	W	SW	W	W	W	W	W	W	NW	W
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CLIMATOLOGICAL DATA FOR MAY, 1903.

Stations.	Counties.	Elevation feet.	Length of record (years).	Temperature (degrees Fahrenheit).							Precipitation (inches).							Sky.				Observations.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (in single ft.).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number days.	Preva- lence of wind.			
Northern Section.																						
Battle Mountain-1	Lander	4,541	33	56.0	-2.5	94	31	28	16	62	0.10	-0.50	0.20	0.0	3	12	5	14	SW	Agent So. Pacific Co.		
Beowawe-3	Eureka	4,635	33	.....	.....	.....	.....	.....	.....	.....	0.55	-0.18	0.35	0.0	2	15	7	9	S	Agent So. Pacific Co.
Carlin-3	Elko	4,897	33	49.4	-4.5	82	29	26	19	.....	0.00	-0.68	0.00	0.0	0	22	0	9	SW	Agent So. Pacific Co.	
Crane's Ranch†	Elko	5,350	16	.....	.....	.....	.....	.....	.....	.....	0.99	-0.73	0.12	.....	6	8	10	13	W	W. T. Crane
Elko-1	Elko	5,063	33	52.2	-2.4	85	31	26	14	47	1.20	+0.59	0.50	T	5	11	4	13	NE	C. H. Sprinkle		
Feelon-3	Elko	6,128	16	.....	.....	.....	.....	.....	.....	.....	0.70	-0.32	0.70	7.0	1	11	0	20	W	Agent So. Pacific Co.
Golconda-3	Humboldt	4,392	25	57.2	-3.2	95	31	35	16	.....	0.00	-1.10	0.00	0.0	0	21	4	6	SW	Agent So. Pacific Co.	
Halleck-3	Elko	5,229	31	53.8	-2.2	95	31	36	3	.....	0.00	-0.98	0.00	0.0	14	10	7	SW	Agent So. Pacific Co.		
Humboldt-1	Humboldt	4,236	32	56.6	-1.6	90	30	33	1	42	0.20	-0.50	0.20	0.0	1	27	3	1	S	Agent So. Pacific Co.		
Lee	Elko	.....	5	.....	.....	.....	.....	.....	.....	.....	2.79	+1.48	1.75	6.0	10	14	7	10	NE	Miss Jennie Williams
Lovelock-1	Humboldt	3,977	12	59.4	-2.8	92	29	38	25	47	0.00	-0.47	0.00	0.0	0	21	8	2	S	Agent So. Pacific Co.		
Mill City-3	Humboldt	1,225	15	52.0	-5.2	94	31	34	18	.....	0.00	-0.98	0.00	0.0	0	19	0	12	SW	Agent So. Pacific Co.	
Palisade-1	Eureka	4,821	22	52.2	-5.2	88	7	28	19	52	0.87	+0.20	0.50	3.5	4	22	0	9	.....	Agent So. Pacific Co.	
Quinn River Ranch-1	Humboldt	4,850	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. M. Payne
Tecoma-1	Elko	4,812	26	52.2	-6.8	88	14	23	2	44	1.75	+1.14	0.62	0.0	5	16	5	10	.....	Agent So. Pacific Co.	
Toano-3	Elko	5,975	34	52.6	-1.8	97	31	24	20	.....	0.89	-0.06	0.35	T	4	22	2	7	SW	Agent So. Pacific Co.	
Wells-3	Elko	5,623	32	.....	.....	.....	.....	.....	.....	.....	T	-0.89	T	0.0	0	13	3	15	SW	Agent So. Pacific Co.
Winnemucca-1	Humboldt	4,432	25	52.8	-1.6	90	31	30	15	43	0.15	-0.81	0.06	T	5	17	5	9	NE	U. S. Weather Bureau		
Wood-1	Elko	6,000	4	50.6	.....	85	12	25	2	47	1.07	.....	0.54	0.0	6	8	13	10	.....	A. H. Wiseman
Eastern Section.		Means	.....	53.6	-3.3	.....	.....	.....	.....	.....	0.68	-0.24	.....	1.0	3	16	5	10	SW	.....	
Ely-1	White Pine	6,000	16	49.4	-1.3	82	13	25	19	41	2.18	+0.27	1.10	5.0	9	17	6	8	NW	Chas. S. Grunditz		
Hamilton-1	White Pine	7,977	3	36.0	.....	50	12	20	18	20	2.92	.....	1.10	29.2	5	14	7	10	N	Mrs. J. F. Beck
Monitor Mill -1	White Pine	6,400	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Jas. B. Orr
Central Section.		Means	.....	42.7	-1.3	.....	.....	.....	.....	.....	2.55	.....	.....	17.1	7	16	6	9	.....	.....
Austin-1	Lander	6,594	15	50.8	-0.5	82	31	26	17	40	1.57	-0.11	.....	.....	.....	.....	.....	.....	.....	H. W. Dyer
Eureka-1	Eureka	6,990	1	51.2	.....	85	13	25	17	46	1.10	.....	0.20	14.5	7	14	9	8	S	D. M. Broy
Potts-1	Nye	6,826	11	48.0	-8.8	85	12	15	17	56	1.30	-0.42	0.40	4.7	8	6	11	14	N	Miss Bessie Potts		
Western Section.		Means	.....	50.0	-4.6	.....	.....	.....	.....	.....	1.32	-0.26	.....	9.6	8	10	10	11	.....	.....
Carson City-2	Ormsby	4,660	24	53.6	-0.6	88	30	28	19	47	0.14	-0.47	0.12	T	3	21	8	2	SW	C. W. Friend		
Carson City (W. B.)-1	Ormsby	4,720	14	53.2	-1.0	86	30	28	19	41	0.04	-0.57	0.04	T	1	19	8	4	W	U. S. Weather Bureau		
Fallon-1	Churchill	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss Ida Dolf
Lewers' Ranch-1	Washoe	5,200	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. R. Lewers
Martin's Ranch-1	Douglas	4,830	5	55.8	+1.6	92	30	28	18	52	T	-0.61	T	T	0	17	8	6	SW	Mrs. J. H. Martin		
Reno-1	Washoe	4,484	33	54.0	-2.6	87	30	30	18	43	0.14	-0.39	0.05	1.1	3	18	10	3	NW	State University		
Verdi-3	Washoe	4,895	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agent So. Pacific Co.
Wabuska-1	Lyon	4,347	1	55.0	.....	92	30	24	18	47	0.20	.....	0.20	T	1	17	3	11	NW	J. H. Harcourt
Wadsworth-1	Washoe	4,077	32	58.4	-4.7	95	30	33	15	50	0.07	-0.36	0.07	T	1	10	20	1	W	Agent So. Pacific Co.		
Southern Section.		Means	.....	55.0	-1.5	.....	.....	.....	.....	.....	0.10	-0.48	.....	0.2	2	17	9	5	W	.....	
Belmont-1	Nye	8,132	12	50.0	-0.6	79	7	19	16	42	0.78	-0.28	0.38	1.0	4	16	5	10	SW	W. N. Granger		
Candelaria-1	Esmeralda	5,783	14	56.8	-0.3	82	12	30	18	32	0.66	-0.04	0.52	T	3	15	8	8	N	A. G. Draper		
Caliente-1	Lincoln	.....	.....	61.7	.....	96	15	29	1	54	0.55	.....	0.55	0.0	1	.....	.....	.....	.....	E. W. Clark
Hawthorne-1	Esmeralda	4,569	16	57.1	+2.1	90	31	31	16	49	0.00	-0.45	0.00	0.0	0	23	6	2	N	T. G. Watterson		
McAfee's Ranch-1	Esmeralda	4,835	.....	54.8	.....	87	31	20	18	52	0.30	.....	0.20	0.0	2	23	3	5	N	G. A. McAfee
Morey-1	Nye	7,384	.....	51.6	.....	87	12	20	17	51	1.47	.....	0.65	3.0	6	15	14	2	N	Jas. B. Gilmore
Palmetto-1	Esmeralda	6,500	14	51.0	-0.8	82	12	19	18	45	1.20	-0.19	0.65	12.0	2	14	12	5	E	Wm. Oothout, Jr.		
Rioville-1	Lincoln	.....	.....	75.5	.....	106	30	45	18	44	T	.....	T	0.0	0	.....	.....	.....	.....	Daniel Bonelli
Silver Peak-1	Esmeralda	4,382	8	57.8	.....	92	31	22	17	39	T	.....	T	0.0	0	19	3	1	S	Geo. A. Kincaid
Sodaville-1	Esmeralda	4,665	5	59.6	.....	95	12	29	17	45	0.49	.....	0.41	0.0	2	19	10	2	N	Agent So. Pacific Co.
Miscellaneous.		Means	.....	57.6	+0.01	.....	.....	.....	.....	.....	0.54	-0.24	.....	1.6	2	18	8	5	N	.....	
State Means	.....	.....	.....	54.1	-2.1	.....	.....	.....	.....	.....	0.70	-0.30	.....	2.4	3	16	7	8	SW	State Means
Miscellaneous.																						
Modena (Utah)-1	Iron	5,470	2	53.0	.....	84	31	27	18	43	0.55	.....	0.26	0.4	7	18	11	2	W	U. S. Weather Bureau

REFERENCES: 1, Weather Bureau maximum and minimum thermometers in use; 2, self-registering maximum and minimum thermometers, not Weather Bureau, in use; 3, means and extremes of temperature from observations by ordinary thermometers at 7 a. m., 2 p. m. and 9 p. m. A small letter placed before the name of a station or against the data in the body of the form, indicates the number of days missing from the record, for instance, "n" denotes 14 days missing. *Italic figures* indicate that the maximum or minimum occurred on several dates. T indicates trace of precipitation. All records are used in determining State and district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

* Not considered in computing State or district means.

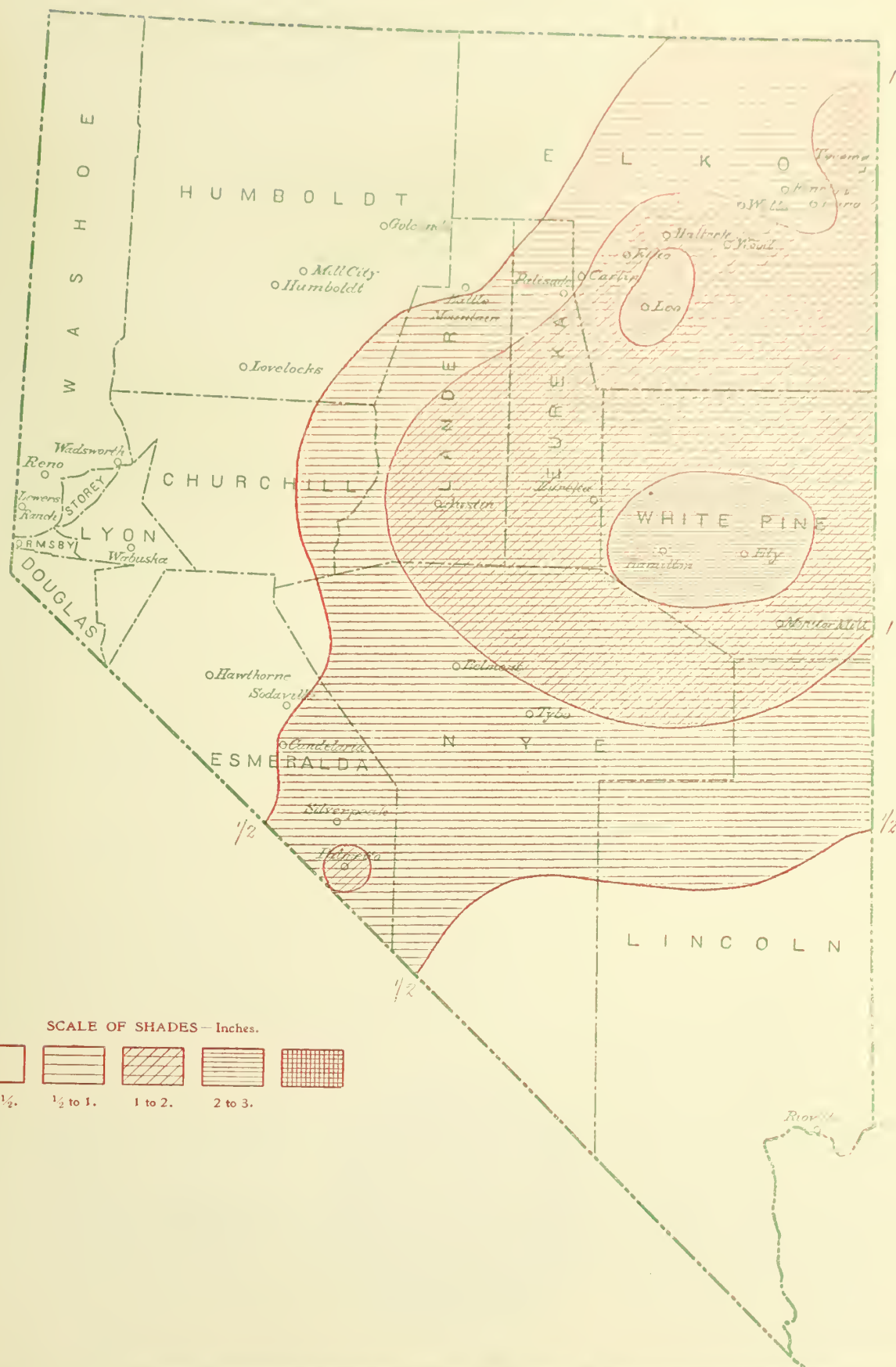
† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. || Postoffice—Elko. ¶ Postoffice—Amos.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MAY, 1903.

Stations.	Day of Month.																															Monthly means.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Austin	Max. 63	62	64	66	69	72	65	65	67	66	71	77	78	71	69	68	44	47	54	49	46	44	45	48	58	61	54	61	69	78	82	62.4	
Battle Mountain	Min. 37	39	38	42	43	46	39	37	42	39	42	52	50	44	35	28	26	28	31	35	29	30	32	31	35	39	39	34	51	56	58	39.2	
Belmont	Max. 78	75	84	86	85	83	80	82	80	82	80	92	90	89	96	89	83	78	79	75	76	66	60	70	75	77	73	83	89	94	95	82.9	
Belmont	Min. 35	32	38	40	42	41	37	41	42	47	48	42	45	32	35	28	34	36	34	35	38	29	26	28	30	35	34	42	42	44	51	50	37.1
Caliente	Max. 80	81	84	83	88	83	86	88	87	82	80	92	90	89	96	89	83	78	79	75	76	66	60	70	75	77	73	83	89	94	95	82.9	
Caliente	Min. 29	47	35	34	36	40	38	37	42	46	42	46	46	42	46	42	46	42	38	38	37	43	42	42	42	42	42	42	44	44	51	40.5	
Candelaria	Max. 70	70	72	74	74	76	71	72	76	74	77	82	82	74	73	71	49	62	61	58	50	54	51	55	62	64	62	72	79	81	81	68.7	
Candelaria	Min. 44	44	47	47	49	51	49	45	49	49	50	57	55	49	41	40	32	30	38	41	38	36	32	30	31	31	31	31	31	31	31	45.0	
Carson City	Max. 74	74	77	77	78	73	72	74	75	80	80	78	74	67	76	58	53	60	62	60	48	36	35	32	39	39	45	43	53	58	62	45.0	
Carson City (W. B.)	Min. 31	34	34	36	38	40	39	40	40	39	40	44	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
Carson City (W. B.)	Max. 69	72	74	76	76	70	70	73	71	75	77	75	72	64	74	55	50	58	58	58	57	45	55	62	68	57	68	74	82	86	84	67.8	
Elko	Min. 33	38	38	37	43	42	45	42	43	40	42	47	47	47	47	31	32	32	31	35	36	38	31	35	36	36	36	36	44	48	52	38.8	
Elko	Max. 68	64	70	74	79	70	71	74	70	74	78	78	78	73	71	74	73	53	60	60	56	58	70	69	67	67	67	67	67	67	67	70.4	
Halleck*	Min. 38	29	31	39	34	35	30	30	35	32	53	38	39	26	36	32	31	33	26	30	31	29	30	29	30	31	31	31	31	31	31	31	31
Halleck*	Max. 65	64	65	67	69	72	70	70	69	69	71	80	82	73	72	36	53	62	43	43	50	31	35	57	65	65	65	65	65	65	65	65	65
Hamilton	Min. 41	30	29	32	32	32	35	32	36	33	36	39	45	40	32	31	26	29	25	32	32	32	33	32	30	32	32	32	32	32	32	32	32
Hamilton	Max. 65	67	68	70	73	72	72	70	73	72	74	81	85	77	72	65	64	60	59	54	41	47	45	46	58	63	61	65	76	79	82	66.3	
Humboldt	Min. 29	31	30	40	49	48	40	34	39	37	38	35	30	35	50	45	28	26	25	27	26	31	29	30	31	40	35	34	43	53	56	36.1	
Humboldt	Max. 56	50	40	68	70	72	70	72	70	62	70	80	70	68	70	50	48	46	60	60	60	60	44	46	65	68	65	74	86	90	95	64.7	
Humboldt	Min. 45	44	36	42	41	45	46	42	42	44	48	48	48	36	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Humboldt	Max. 41	42	40	39	40	45	47	48	49	47	49	50	48	46	47	46	40	40	40	41	43	40	41	42	46	44	44	44	44	46	48	43.4	
Humboldt	Min. 28	30	31	32	30	28	29	30	29	30	33	30	30	29	30	27	24	20	22	20	20	27	25	25	27	26	28	30	33	35	36	28.7	
Humboldt	Max. 70	68	74	75	73	70	75	80	75	80	78	80	80	69	75	68	67	70	72	79	80	68	60	55	58	77	70	65	67	75	83	90	73.2
Hawthorne	Min. 33	34	34	36	35	38	42	40	50	43	37	40	47	40	35	36	35	40	43	38	36	35	33	35	40	43	46	49	45	48	56	40.1	
Hawthorne	Max. 75	70	72	75	76	79	82	70	73	78	78	80	85	80	67	80	50	52	63	63	64	55	58	58	58	68	68	66	75	85	90	70.7	
Hawthorne	Min. 43	45	43	43	43	49	40	40	42	40	42	53	50	49	43	31	31	32	36	43	40	35	38	35	45	47	50	60	60	60	60	43.5	
Hawthorne	Max. 74	80	82	82	83	81	79	84	87	82	84	87	83	72	77	80	72	70	73	69	67	72	62	67	70	61	69	80	92	86	90	76.9	
Lewers' Ranch	Min. 70	74	80	82	83	81	79	84	87	82	84	87	83	72	77	80	72	70	73	69	67	72	62	67	70	61	69	80	92	86	90	76.9	
Lewers' Ranch	Max. 40	39	42	41	44	50	42	43	40	44	49	47	43	39	41	39	41	42	39	41	42	41	39	41	38	40	38	42	43	46	49	51	41.9
Lewers' Ranch	Min. 77	80	83	83	84	79	77	80	84	84	84	87	84	71	71	66	57	63	64	62	51	61	58	64	73	61	73	88	92	91	91	74.8	
Martin's Ranch	Max. 77	80	83	83	84	79	77	80	84	84	84	87	84	71	71	66	57	63	64	62	51	61	58	64	73	61	73	88	92	91	91	74.8	
Martin's Ranch	Min. 31	32	34	35	37	37	34	37	37	37	39	43	35	35	30	38	28	30	30	33	31	33	33	35	33	42	35	38	42	46	49	36.8	
McAfee's Ranch	Max. 82	76	78	78	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
McAfee's Ranch	Min. 36	40	38	38	32	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
Monitor Mill	Max. 75	78	77	77	78	79	76	80	77	73	85	87	83	63	80	60	40	56	65	52	46	52	49	48	60	67	59	74	83	87	85	69.2	
Monitor Mill	Min. 73	75	78	77	78	79	76	80	77	73	85	87	83	63	80	60	40	56	65	52	46	52	49	48	60	67	59	74	83	87	85	69.2	
Morey	Max. 37	34	37	37	37	39	44	45	47	45	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
Morey	Min. 37	34	37	37	37	39	44	45	47	45	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
Palmetto	Max. 31	35	35	35	35	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Palmetto	Min. 81	79	83	83	81	87	88	83	72	78	74	79	74	69	65	58	52	54	52	50	51	50	50	57	65	64	66	65	79	81	83	69.4	
Palisade	Max. 81	79	83	83	81	87	88	83	72	78	74	79	74	69	65	58	52	54	52	50	51	50	50	57	65	64	66	65	79	81	83	69.4	
Palisade	Min. 37	34	39	35	35	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Potts	Max. 70	74	77	74	72	75	70	73	71	74	76	85	80	60	60	60	74	42	40	45	39	38	53	60	51	62	67	64	71	83	85	83	66.1
Potts	Min. 50	40	28	26	30	32	38	25	30	31	30	31	24	20	20	23	23	15	24	26	24	28	31	30	32	27	30	30	34	39	43	29.8	
Quinn River Ranch	Max. 73	75	78	77	78	79	76	80	77	73	85	87	83	63	80	60	40	56	65	52	46	52	49	48	60	67	59	74	83	87	85	69.2	
Quinn River Ranch	Min. 73	75	78	77	78	79	76	80	77	73	85	87	83	63	80	60	40	56	65	52	46	52	49	48	60	67	59	74	83	87	85	69.2	
Morey	Max. 37	34	37	37	37	39	44	45	47	45	47	47	47	47	47	47	47	47	47	47	47	47											

*Extremes of temperature from readings of ordinary thermometer at 7 a. m., 2 p. m. and 9 p. m.

TOTAL PRECIPITATION FOR MAY, 1903




Day of Month.

R indicates trace. * Precipitation included in that of following day.

d in that of following day.

CARSON CITY, NEVADA :

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.



1903

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR JUNE, 1903.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

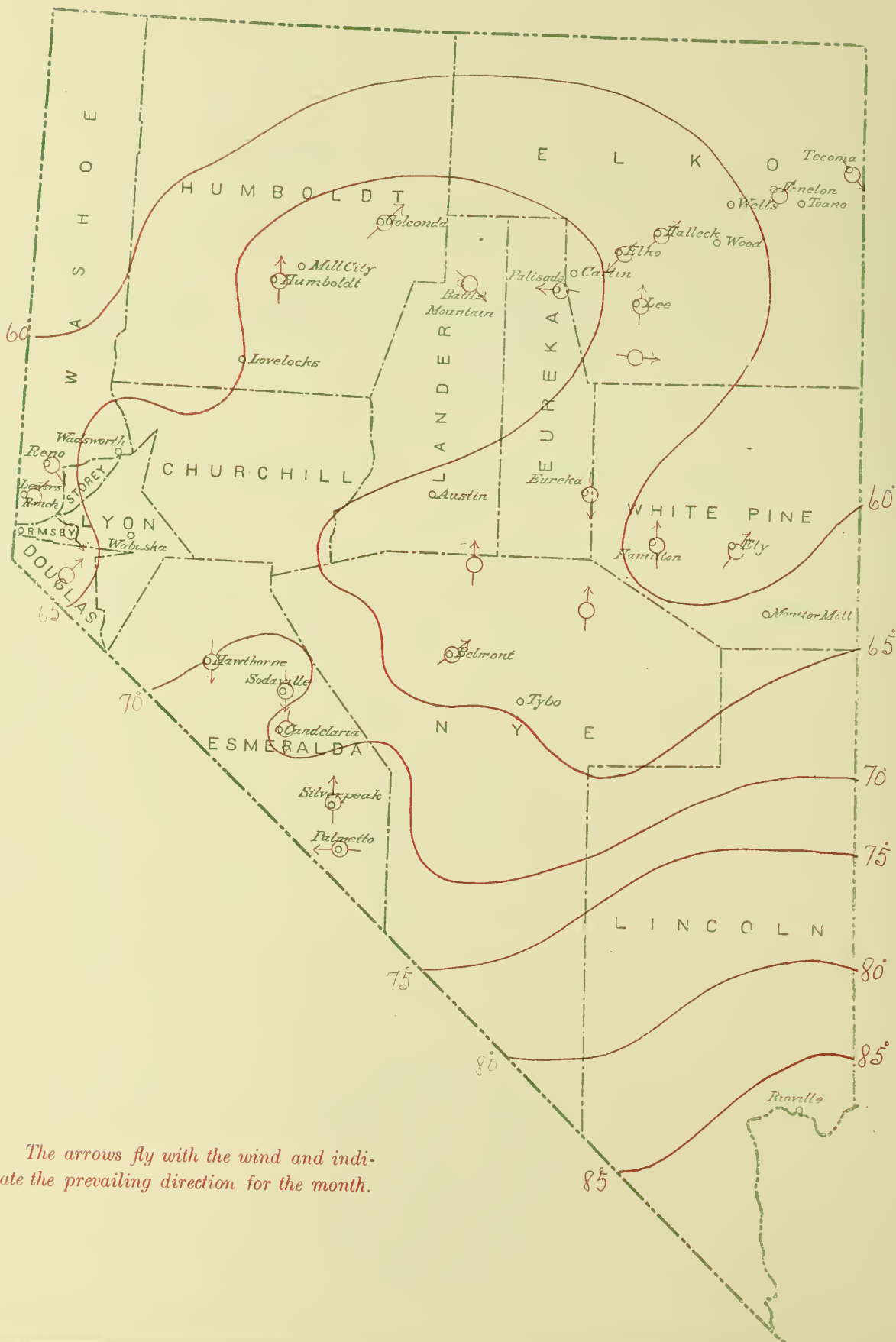
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR JUNE, 1903.



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director.

CARSON CITY, NEVADA.

VOL. XVII

CARSON CITY, NEVADA

No. 6.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.87 inches.

The highest pressure, 30.25 inches, was recorded at Winnemucca, on the 6th, and the lowest, 29.51 inches, at Winnemucca, on the 14th.

The absolute range of pressure for the State was 0.74 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, determined from the reports of thirty-five stations, was 66.5, or about 1 above normal, and 0.2 higher than the mean for the corresponding month of 1902.

By sections, the means were as follows: Northern, 67.8; eastern, 57.7; central, 63.1; western, 64.7; southern, 69.6.

The highest monthly mean, 84.8, was recorded at Rioville, Lincoln County.

The lowest monthly mean, 53.2, was recorded at Hamilton, White Pine County.

The highest temperature recorded during the month was 113, at Rioville, Lincoln County, on the 28th.

The lowest temperature recorded during the month was 28, at Hamilton, White Pine County, on the 10th.

The absolute range of temperature for the State was 85.

The greatest local daily range of temperature at stations equipped with self-registering thermometers was 57, at Tecoma, Elko County, on the 30th, and the least, 11, at Carson City, Ormsby County, on the 29th.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 0.45 of an inch, or 0.10 of an inch above normal, and 0.41 of an inch in excess of the average for the month of June 1902.

By sections, the averages were as follows: Northern, 0.64 of an inch; eastern, 0.48 of an inch; central, 0.42 of an inch; western, 0.08 of an inch; southern, 0.45 of an inch.

The greatest monthly amount, 1.60 inches, was recorded at Elko, Elko County, and the least, none, at several stations.

Relative Humidity.

Carson City—8 a. m., 58 per cent; 8 p. m., 30 per cent; monthly mean, 44 per cent.

Winnemucca—8 a. m., 62 per cent; 8 p. m., 30 per cent; monthly mean, 46 per cent.

Modena (Utah)—8 a. m., 42 per cent; 8 p. m., 20 per cent; monthly mean, 31 per cent.

Wind and Weather.

The prevailing direction of the wind was from the south west.

The total movement of the wind at Carson City was 4,752 miles; Winnemucca, 6,160 miles; Modena (Utah), 8,060 miles.

The maximum velocity at Carson City was 30 miles per hour, from the northeast, on the 8th; Winnemucca, 31 miles per hour, from the southwest, on the 14th, and 43 miles per hour, from the southwest, at Modena (Utah), on the 29th.

The average number of clear days was 17; partly cloudy, 8; cloudy, 5; days with .01 or more of precipitation, 3.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR JUNE DURING THE PAST FIFTEEN YEARS.

Year.	Mean.	Temperature Highest.	Lowest.	Average Precipitation Inches and Hundredths
1889	70.0	110	30	0.22
1890	61.5	109	24	0.05
1891	59.8	97	8	1.18
1892	62.8	110	22	1.06
1893	63.8	100	18	0.04
1894	57.8	92	20	1.12
1895	62.9	109	14	0.13
1896	68.7	117	25	0.22
1897	62.8	112	20	0.37
1898	65.0	104	20	0.19
1899	63.7	103	21	0.60
1900	67.7	111	28	0.32
1901	59.1	99	21	0.15
1902	66.3	116	20	0.04
1903	66.5	113	28	0.45

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Earthquake Shock—Carson City, 11th.

Hail—Halleck, 2d; Palmetto, 8th.

Light Frost—Carson City, 3d.

Killing Frost—Potts, 4th; Hamilton, 24th.

Solar Halos—Winnemucca, 4th; Carson City, 19th, 20th, 21st.

High Winds—Morey, 14th, 15th, 16th; Wabuska, 16th; Beowawe, 14th, 15th; Candelaria, 15th; Palmetto, 14th, 15th; Fenelon, 7th, 8th, 9th, 10th, 13th, 14th; Lee, 15th; Potts, 2d, 16th, 29th; Hamilton, 13th, 14th, 15th; Reno, 14th, 15th, 28th, 29th, 30th; Modena (Utah), 29th.

Thunderstorms—Morey, 7th, 8th, 9th, 10th, 11th; Candelaria, 7th, 8th, 9th, 10th, 11th; Palmetto, 5th, 8th, 9th, 10th; Golconda, 10th; Lee, 12th, 13th; Potts, 1st, 2d, 9th, 10th; Tecoma, 1st, 2d, 11th, 14th; Martin's Ranch, 8th; Reno, 8th, 9th; Carson City, 9th; Winnemucca, 1st, 8th, 9th, 10th, 14th; Modena (Utah), 1st, 3d, 4th, 6th, 7th, 8th, 11th.

CLIMATOLOGICAL DATA FOR JUNE, 1903.

Stations	Counties	Elevation (feet)	Length of record (years)	Temperature (degrees Fahrenheit)						Precipitation (inches)						Sun						Remarks
				Mean	Departure from the normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from the normal	Greatest in 24 hours	Total in 24 hours	Number of days	Number of days	Number of days	Number of days	Number of days			
Northern Section.																						
Battle Mountain—1	Lander	4,511	33	70.7	+2.4	97	25	42	19	53	0.31	-0.20	0.20	0	2	17	11	2	sw	Agent So. Pacific Co.		
Beowawe—3	Eureka	1,095	33	72.8	+1.0	97	25	51	3		0.13	-0.01	0.10	0	3	15	13	2		Agent So. Pacific Co.		
Carlin—3	Elko	1,847	33	69.6	+4.9	96	26	38	3											Agent So. Pacific Co.		
Crane's Ranch	Elko	5,350	16								0.75	+0.61	0.23	0	6	20	5	5	w	W. T. Crane		
Elko—1	Elko	5,063	33	63.3	-1.7	92	8	37	8		1.00	+1.15		0	4	19	5	6	sw	C. H. Sprinkle		
Fenelon—3	Elko	6,128	16								1.50	+1.22	0.70	0	5				sw	Agent So. Pacific Co.		
Golconda—3	Humboldt	1,392	25	74.2	+1.3	95	25	60	6		0.30	-0.29	0.30	0	1	25	1	1	sw	Agent So. Pacific Co.		
Hallock—3	Elko	5,229	31	71.2	+6.2	94	25	18	3					0	3	25	4	1	sw	Agent So. Pacific Co.		
Humboldt—1	Humboldt	1,236	32	67.2	+0.9	95	25	41	1	41	1.35	+1.00	0.80	0	3	25	2	3	s	Agent So. Pacific Co.		
Lee	Elko		5								0.51	-0.12	0.18	0	8	17	8	5	s	Miss Jennie Williams		
Lovelock—1	Humboldt	3,977	12	61.2	-8.8	97	25	38	7	41	0.00	-0.00	0.00	0	0	18	12	0		Agent So. Pacific Co.		
Mill City—3	Humboldt	1,225	15	69.8	+1.2	94	27	53	7					0	0					Agent So. Pacific Co.		
Palisade—1	Eureka	1,821	22	63.1	-3.0	90	25	30	6		0.92	+0.41	0.50	0	3	16	0	11	e	Agent So. Pacific Co.		
Quinn River Ranch—1	Humboldt	1,850	2																	F. M. Payne		
Tecoma—1	Elko	1,812	26	66.9	-0.7	99	30	40	1	57	T	-0.57	T	0	0	18	12	0		Agent So. Pacific Co.		
Toano—3	Elko	5,975	31																	Agent So. Pacific Co.		
Wells—3	Elko	5,623	32																	Agent So. Pacific Co.		
Winnemucca—1	Humboldt	1,132	25	65.4	+3.0	91	27	36	3	42	0.71	-0.04	0.66	0	5	16	8	6	NE	U. S. Weather Bureau		
Wood—1	Elko	6,000	4	62.0		93	20	37	13	48	0.33		0.16	0	5	18	10	2		A. H. Wiseman		
Means				67.8	+1.1						0.61	+0.28			3	19	7	1	sw			
Eastern Section.																						
Ely—1	White Pine	6,000	16	62.2	+3.0	93	28	10	12	45	0.18	-0.19	0.01	0	4	21	5	4	sw	Chas. S. Gruntditz		
Hamilton—1	White Pine	7,977	3	53.2		85	27	28	10	47	0.78		0.33	T	3	18	9	3	s	Mrs. J. F. Beck		
Monitor Mill—1	White Pine	6,400	5																	Jas. B. Orr		
Means				57.7	+3.0						0.48	-0.19			4	20	7	3				
Central Section.																						
Austin—1	Lander	6,591	15	63.0	+3.2	86	25	41	3	34	0.60	-0.18	0.25	0	5					H. W. Dyer		
Eureka—1	Eureka	6,990	1	64.0		95	27	40	3	45	0.10		0.10	T	1	16	10	4	s	D. M. Broy		
Potts—1	Nye	6,826	11	62.3	-7.5	94	27	32	4	55	0.55	+0.45	0.25	0	5	9	5	16	s	Miss Bessie Potts		
Means				63.1	-2.2						0.42	+0.14			4	12	8	10				
Western Section.																						
Carson City—2	Ormsby	4,660	24	62.2	+1.0	91	27	32	3	46	0.02	-0.41	0.02	0	1	18	10	2	sw	C. W. Friend		
Carson City (W. B.)—1	Ormsby	4,720	14	62.4	+1.2	88	27	35	3	40	T	-0.43	T	0	0	20	7	3	sw	U. S. Weather Bureau		
Fallon—1	Churchill			67.2		95	26	39	3	40	0.30		0.20	0	2					Mrs. Ida Dolf		
eLewers' Ranch—1	Washoe	5,200	16	63.2	+2.6	90	27	35	17		T	+0.45	T	0	0	11	13	1	sw	E. R. Lewers		
Martin's Ranch—1	Douglas	4,830	5	64.2	+3.0	93	25	33	3	48	0.00	-0.43	0.00	0	0	21	7	2	sw	Mrs. J. H. Martin		
Reno—1	Washoe	4,184	33	63.4	-1.0	94	27	34	3	44	0.22	+0.03	0.07	0	5	21	7	2	sw	State University		
Wabuska—1	Lyon	4,317	1	66.4		100	25	32	2	53	0.09		0.09	0	1	20	5	5		J. H. Harcourt		
Wadsworth—1	Washoe	4,077	32	68.4	-4.6	98	28	34	1	48	0.00	-0.20	0.00	0	0					Agent So. Pacific Co.		
Means				64.7	+0.4						0.08	-0.31			1	18	8	4	sw			
Southern Section.																						
Belmont—1	Nye	8,132	12	62.9	+3.9	97	26	37	5	41	0.80	+0.28	0.80	0	1	13	6	7	sw	W. N. Granger		
Candelaria—1	Esmeralda	5,783	14	68.8	+3.3	94	26	46	16	30	0.39	-0.23	0.17	0	4	12	10	8	N	A. G. Draper		
Caliente—1	Lincoln			71.0		104	26	40	20	55	0.00		0.00	0	0					E. W. Clark		
Hawthorne—1	Esmeralda	4,569	16	67.6	-0.7	97	29	45	3	42	0.00	-0.29	0.00	0	0	22		8	N	T. G. Watterson		
McAfee's Ranch—1	Esmeralda	4,835																		G. A. McAfee		
Morey—1	Nye	7,384		65.1		98	25	38	17	48	0.65		0.35	0	4	10	20	0	s	Jas. B. Gilmore		
Palmetto—1	Esmeralda	6,500	14	61.4	+2.8	93	27	36	3	43	1.54	+1.05	0.83	0	4	17	8	5	E	Wm. Oothout, Jr.		
Rioville—1	Lincoln			84.8		113	28	58	17	45	0.07		0.07	0	1					Daniel Bonelli		
Silver Peak—1	Esmeralda	4,382	8	73.2		101	27	45	15	41	0.16		0.16	0	1	27	2	1	s	Joseph Hand		
Sodaville—1	Esmeralda	4,665	5	71.8		102	28	46	15	36	0.47		0.37	0	3	16	13	1	N	Agent So. Pacific Co.		
Means				69.6	+2.3						0.45	+0.32			2	17	8	5	N			
State Means				66.5	+0.9						0.45	+0.10			3	17	8	5	sw	State Means		
Miscellaneous.																						
Modena (Utah)—1	Iron	5,470	2	66.0		94	28	41	16	45	0.13		0.06	0	5	21	7	2	sw	U. S. Weather Bureau		

REFERENCES: 1. Weather Bureau maximum and minimum thermometers in use; 2. self-registering maximum and minimum thermometers, not Weather Bureau, in use; 3. means and extremes of temperature from observations by ordinary thermometers at 7 a. m., 2 p. m., and 9 p. m. A small letter placed before the name of a station, or against the data in the body of the form, indicates the number of days missing from the record; for instance, "n" denotes 14 days missing. *Italic figures* indicate that the maximum or minimum occurred on several dates. T indicates trace of precipitation. All records are used in determining State and district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

* Not considered in computing State or district means.

† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville.

¶ Postoffice—Elko.

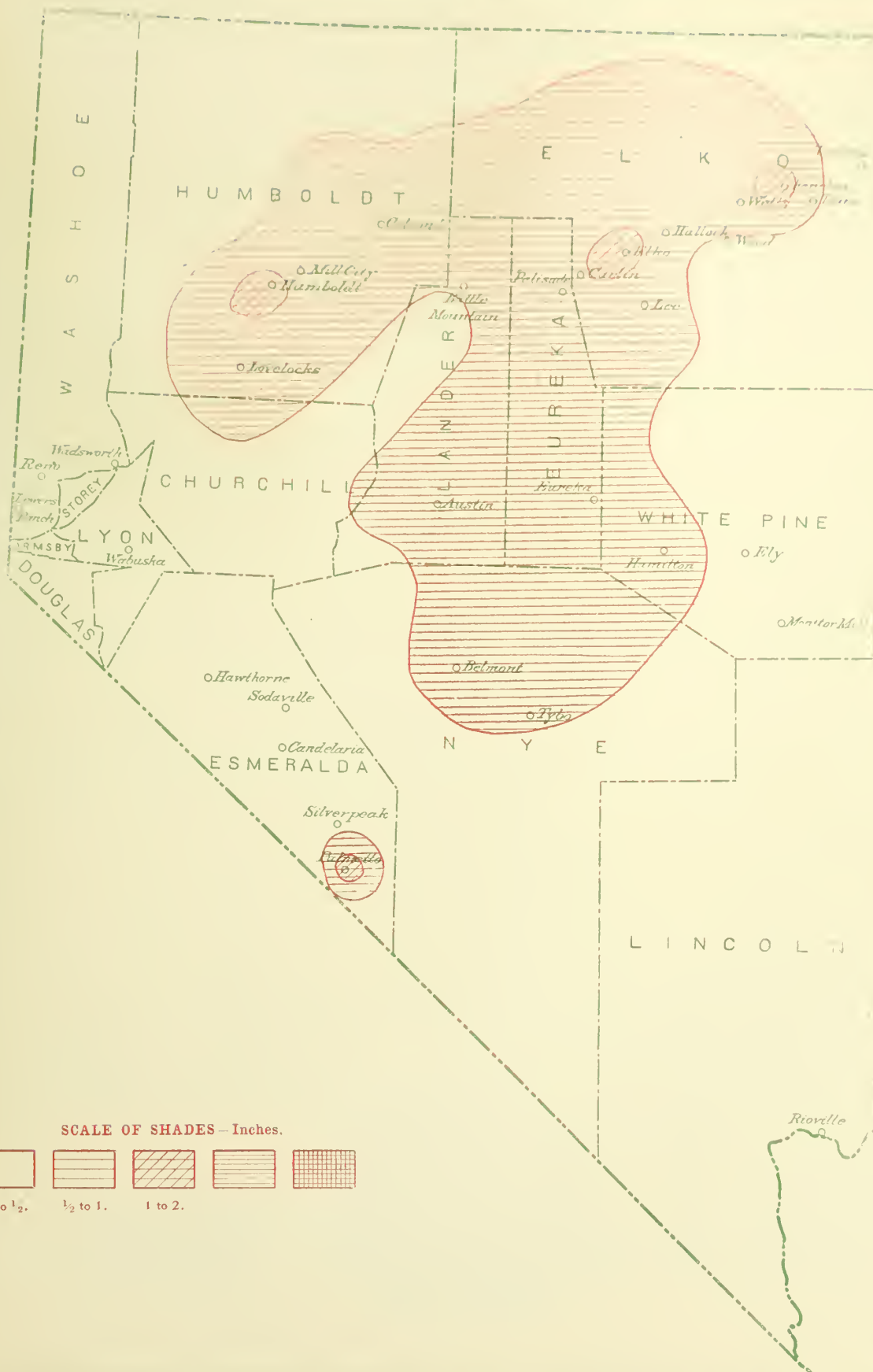
‡ Postoffice—Amos.

Day of Month,

Stations	Day of Month.												Total																					
	1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Austin	Max. 77	68	69	73	76	75	76	75	75	70	63	71	76	72	67	71	73	77	84	78	83	78	74	78	86	85	84	86	85	79	---			
Min. 32	49	50	41	45	49	53	52	55	53	50	49	15	15	17	16	19	23	47	52	50	53	47	48	49	54	55	56	55	51	47	---			
Battle Mountain	Max. 95	85	90	90	90	90	92	90	90	90	95	95	95	90	90	95	94	95	95	95	92	95	95	95	97	97	97	97	95	90	42	---		
Min. 56	55	45	50	50	50	45	50	45	50	45	45	30	45	48	50	62	46	46	48	42	81	81	80	80	88	88	88	88	84	45	---			
Belmont	Max. 79	75	75	76	74	72	70	70	70	70	74	73	76	70	74	63	72	76	76	81	84	81	76	76	80	87	97	97	97	88	75	82	---	
Min. 49	41	43	43	48	37	46	48	48	48	---	---	---	---	44	43	47	47	46	51	51	51	45	43	56	56	56	56	50	49	54	---			
Caliente	Max. 95	90	92	94	94	92	93	90	90	86	92	90	90	90	91	90	88	92	91	95	95	95	96	91	91	104	102	102	101	100	99	---		
Min. 35	45	50	52	51	52	44	44	44	44	44	46	48	46	46	46	44	44	44	42	40	45	46	45	48	54	53	52	57	55	56	---			
Candelaria	Max. 81	77	75	79	80	81	80	78	77	70	70	76	70	76	80	72	75	76	85	83	86	80	81	81	91	91	94	94	92	87	85	---		
Min. 58	56	58	52	57	53	59	58	58	55	51	52	44	40	52	52	46	51	51	58	59	56	56	57	58	61	65	64	66	67	57	---			
Carson City	Max. 79	70	74	80	83	84	85	85	84	70	74	76	77	73	73	68	76	76	82	84	79	77	81	88	87	87	91	87	77	83	---			
Min. 45	43	43	32	38	43	47	43	48	49	52	68	72	73	74	39	41	40	42	41	40	45	45	45	47	48	57	45	46	46	40	47	---		
Carson City (W. B.)	Max. 76	66	71	79	82	82	83	80	80	68	72	73	74	71	63	65	72	82	81	82	78	73	73	79	87	85	88	84	73	82	74	---		
Min. 48	49	35	41	45	50	45	50	45	50	44	44	40	44	40	42	40	45	46	49	49	85	86	86	90	92	91	91	91	87	86	48	---		
Elko	Max. 78	74	78	76	75	78	75	92	84	78	79	80	82	84	82	81	79	88	86	85	84	85	86	90	92	91	91	90	87	86	---			
Min. 38	46	44	40	44	44	40	37	45	47	47	41	39	41	42	41	48	44	39	47	46	47	44	42	47	49	51	46	44	41	39	---			
Ely	Max. 76	76	74	74	74	75	74	70	67	70	73	74	74	74	73	74	74	79	83	86	83	85	80	79	91	90	91	89	93	88	85	---		
Min. 50	49	41	42	41	42	41	41	42	45	45	45	40	44	44	43	43	41	41	43	41	46	46	46	44	45	51	55	56	53	45	---			
Eureka	Max. 83	80	76	78	76	77	76	77	76	74	77	71	77	71	77	79	78	79	87	87	84	85	87	87	90	89	93	93	94	84	86	---		
Min. 52	52	49	41	45	44	44	45	44	44	47	46	50	46	51	51	49	49	44	45	47	46	47	46	47	45	45	53	53	52	45	46	---		
Fallon	Max. 85	79	77	82	85	85	87	88	86	76	81	82	81	82	81	80	75	86	85	86	87	80	81	86	94	92	95	93	75	88	---			
Min. 58	50	39	45	40	45	52	54	53	54	53	51	49	46	45	46	45	50	49	58	50	58	50	53	50	94	94	94	92	90	90	90	---		
Halleck*	Max. 90	70	68	80	84	88	88	88	88	90	68	80	76	86	84	84	86	88	90	88	86	84	90	90	90	94	94	94	92	90	90	---		
Min. 60	56	48	52	60	56	56	56	56	56	58	56	56	56	56	56	56	54	54	56	60	66	62	56	56	66	64	64	58	50	50	50	---		
Hamilton	Max. 50	49	52	60	65	69	69	68	70	69	70	72	73	72	72	74	75	79	78	78	73	78	73	78	83	84	83	76	69	75	---			
Min. 39	38	39	38	39	38	34	33	31	30	28	20	30	33	31	30	31	36	40	40	35	32	33	31	32	40	44	43	40	35	39	---			
Humboldt	Max. 87	76	77	79	82	84	85	88	86	70	70	70	72	72	70	81	80	82	80	85	87	84	85	84	87	95	89	82	87	75	88	---		
Min. 56	52	45	44	44	40	57	55	53	54	52	50	47	52	50	52	50	48	50	48	46	50	50	52	51	59	62	65	57	55	57	57	---		
Hawthorne	Max. 88	80	82	88	83	85	85	85	85	82	84	80	84	80	84	80	78	78	85	86	86	88	88	90	88	88	90	93	96	97	75	---		
Min. 52	50	45	48	48	55	55	55	58	55	45	54	60	50	50	50	53	53	64	55	55	56	57	54	56	57	58	60	58	60	56	56	---		
Lewers' Ranch	Max. 82	79	82	84	86	84	84	83	83	80	73	74	75	75	75	75	75	75	75	81	82	82	82	82	86	90	85	75	81	81	81	---		
Min. 42	39	42	43	43	47	49	49	49	50	44	44	47	47	45	46	46	45	46	45	47	47	43	42	42	50	51	52	51	50	56	48	---		
Lovelock	Max. 82	79	82	84	86	84	84	83	83	80	73	74	75	75	75	75	75	75	81	82	82	82	82	82	86	90	85	75	81	81	81	---		
Martin's Ranch	Max. 82	79	82	84	86	84	84	83	83	80	73	74	75	75	75	75	75	75	81	82	82	82	82	82	86	90	85	75	81	81	81	---		
McAfee's Ranch	Max. 82	79	82	84	86	84	84	83	83	80	73	74	75	75	75	75	75	75	81	82	82	82	82	82	86	90	85	75	81	81	81	---		
Min. 45	53	33	39	41	43	42	42	48	48	52	42	45	45	41	41	41	35	35	42	42	46	46	46	46	50	56	67	66	67	61	61	---		
Monitor Mill	Max. 83	80	82	84	86	84	84	83	83	80	73	74	75	75	75	75	75	75	81	82	82	82	82	82	86	90	85	75	81	81	81	---		
Min. 46	46	45	45	45	47	49	49	49	49	44	44	47	47	45	46	45	46	45	47	47	43	43	43	43	43	43	43	43	43	43	43	---		
Morey	Max. 82	72	77	80	82	82	82	82	82	70	62	70	74	75	70	74	72	66	78	82	84	84	84	84	84	84	84	84	84	84	84	84	---	
Palmetto	Max. 82	72	77	80	82	82	82	82	82	70	62	70	74	75	70	74	72	66	78	82	84	84	84	84	84	84	84	84	84	84	84	84	---	
Palisade	Max. 82	72	77	80	82	82	82	82	82	70	62	70	74	75	70	74	72	66	78	82	84	84	84	84	84	84	84	84	84	84	84	84	---	
Min. 44	44	39	37	37	38	30	39	38	38	34	39	44	44	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	---	
Ports	Max. 83	83	78	79	88	88	82	91	90	80	65	75	81	79	76	75	78	78	79	89	89	87	83	83	85	93	90	94	93	91	90	---		
Min. 43	41	33	32	34	33	33	39	38	40	47	40	43	44	40	43	44	45	44	45	44	42	42	41	38	40	40	40	44	43	50	44	---		
Reno	Max. 80	71	75	78	84	83	82	83	83	74	75	75	75	75	75	75	75	75	75	82	82	82	82	82	82	82	82	82	82	82	82	82	---	
Min. 47	47	43	42	47	49	48	48	48	48	42	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	---	
Rioville	Max. 105	95	107	105	104	104	100	98	95	95	95	98	98	96	95	100	100	96	97	107	107	107	107	107	107	107	107	107	107	107	107	107	---	
Min. 76	70	70	70	70	67	65	68	70	68	64	65	62	69	69	68	62	58	60	62	62	72	71	68	71	68	70	78	79	73	73	73	73	73	---
Silver Peak	Max. 89	85	85	89	85	89	82	83	73	79	80	85	87	87	80	87	81	83	83	85	87	80	92	94	93	96	95	102	100	100	88	94	---	
Min. 57	62	52	52	56	56	62	56	62	58	58	56	56	56	56	54	55	52	52	55	55	57	60	65	69	69	69	69	69	69	69	69	69	69	---
Sodaville	Max. 85	76	86	88	88	82	84	85	84	74	78	82	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	---
Min. 57	52	54	54	53	56	57																												

Extremes of temperature from readings of ordinary thermometer at 7 a. m., 2 p. m., and 9 p. m.

TOTAL PRECIPITATION FOR JUNE, 1903



SCALE OF SHADES - Inches.



0 to 1/2.

1/2 to 1.

1 to 2.

DAILY PRECIPITATION FOR JUNE, 1903.

Stations.	Day of Month.																														Total.		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		31	
Northern Section.																																	
Battle Mountain	.02	.20							.01																				.14			.34	
Beowawe																													.40			.43	
Carlin	.05	.31							.02	.23	.10	.04																				.00	
Crane's Ranch	*	*	1.50								T																		.10			.75	
Elko																																1.60	
Fenelon	T	T					.70	.30	.10				.30	.10															.30			1.50	
Golconda		T								T																						0.30	
Halleck				.55																													
Humboldt	T					.03		.01	.09	.03	.18	.15	T														*	.80	.03				1.30
Lee	.02																															0.5	
Lovelock																																	
Mill City																																	0.00
Palisade		.50									.03		.39																				0.00
Quinn River Ranch																																	0.92
Tecoma	T	T									T			T															T			T	
Toano																																	
Wells																																	
Winnemucca	T	.01							.03	.01	T	.03	T	T																.66			.74
Wood	.16	.04					.02			.06	.05																						0.33
Eastern Section.																																	
Ely	.01		T					.09	.01		.07																						0.18
Hamilton	T						T	.20	.25	.33																			T			0.78	
Monitor Mill																																	
Central Section.																																	
Austin	.02	.10								.12	.25																			.11			0.60
Eureka						T				.10	T																						0.10
Potts	.10	.01							.09	.10	.25																			T			0.55
Western Section.																																	
Carson City (W. B.)								T	T	.02					T															T			0.02
Fallon										.20																				.10			0.30
Lewers' Ranch									T	T																							.10
Martin's Ranch																																	0.00
Reno								.01	.07	.07				.02																.05			0.22
Wabaska											.09																						0.09
Wadsworth																																	0.00
Southern Section.																																	
Belmont										.80																							0.80
Candelaria	T	.01					T	T	.17	.12	.09		T																				0.39
Caliente																																	0.00
Hawthorne																																	0.00
McAfee's Ranch																																	
Morey								.03	.35	.12	.15																						0.65
Palmetto					.15	T	T	.38	.18	.83	T																						1.54
Rioville											.07																						0.07
Silver Peak											.16																						0.16
Sodaville								.06	.37	.04																							0.47
Miscellaneous.																																	
Modena (Utah)	.06	T						.02	.02	T	.02	.01																					0.13

T indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA :
STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR JULY, 1903.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

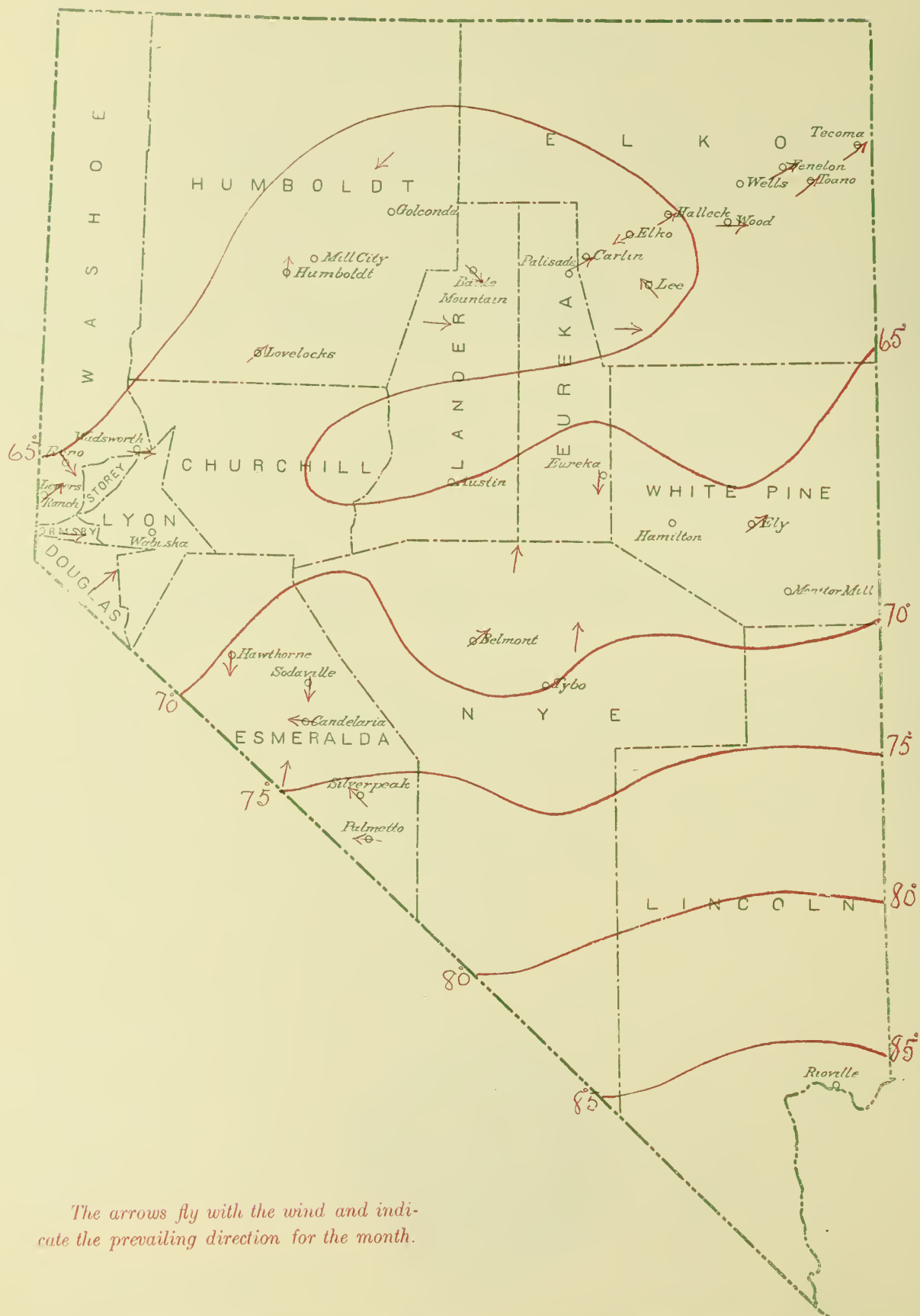
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR JULY, 1903.



The arrows fly with the wind and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,
CARSON CITY, NEVADA.

VOL. XVII.

CARSON CITY, NEVADA

No. 7.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.88 inches.

The highest pressure, 30.12 inches, was recorded at Winnemucca, on the 3d, and the lowest, 29.47 inches, at Modena, Utah, on the 1st.

The absolute range of pressure for the State was 0.65 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, determined from the reports of thirty-four stations, was 65.4, or about 5 below normal, and nearly 3 lower than the mean for the corresponding month of 1902.

By sections, the means were as follows: Northern, 69.2; eastern, 65.6; central, 65.3; western, 65.0; southern, 72.0.

The highest monthly mean, 87.2, was recorded at Riville, Lincoln County.

The lowest monthly mean, 62.7, was recorded at Lewers' Ranch, Washoe County.

The highest temperature recorded during the month was 111, at Riville, Lincoln County, on the 28th.

The lowest temperature recorded during the month was 26, at Potts, Nye County, on the 7th.

The absolute range of temperature for the State was 85.

The greatest local daily range of temperature at stations equipped with self-registering thermometers was 60, at McAfee's Ranch, Esmeralda County, on the 30th, and the least, 11, at Martin's Ranch, Douglas County, on the 1st.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 0.01 of an inch, or 0.43 of an inch below normal, and 0.43 of an inch below the average of the corresponding month of 1902.

By sections, the averages were as follows: Northern, 0.02 of an inch; eastern, trace; central, 0.00; western, 0.00; southern, 0.02 of an inch.

The greatest monthly amount, 0.30 of an inch, was recorded at Fenelon, Elko County, and the least, none, at thirty-one stations. It was the driest July in the past fourteen years.

Relative Humidity.

Carson City—8 a. m., 48 per cent; 8 p. m., 26 per cent; monthly mean, 37 per cent.

Winnemucca—8 a. m., 54 per cent; 8 p. m., 29 per cent; monthly mean, 42 per cent.

Modena (Utah)—8 a. m., 36 per cent; 8 p. m., 16 per cent; monthly mean, 26 per cent.

Wind and Weather.

The prevailing direction of the wind was from the southwest.

The total movement of the wind at Carson City was 5,150 miles; Winnemucca, 6,648 miles; Modena (Utah), 10,384 miles. The maximum velocity at Carson City was 40 miles per hour, from the southwest, on the 6th; Winnemucca, 42 miles per hour, from the southwest, on the 5th, and 65 miles per hour, from the southwest, at Modena (Utah), on the 6th.

The average number of clear days was 27; partly cloudy, 3; cloudy, 1; days with .01 of an inch or more of precipitation, 1.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR JULY DURING THE PAST FOURTEEN YEARS.

Year.	Temperature			Average Precipitation, Inches and 100ths.
	Mean.	Highest.	Lowest.	
1890	74.0	118	28	0.15
1891	70.4	102	26	0.53
1892	70.6	115	30	0.67
1893	70.3	110	24	0.40
1894	71.7	108	32	0.75
1895	62.9	109	14	0.13
1896	72.7	112	33	0.79
1897	69.4	116	25	0.28
1898	73.5	114	30	0.12
1899	72.6	106	34	0.14
1900	70.6	113	33	0.37
1901	70.8	109	31	0.31
1902	67.9	116	25	0.44
1903	65.4	111	26	0.01

OBSERVERS' REMARKS.

LEE—Very warm, dry month, with a great deal of wind.

MISS JENNIE WILLIAMS.

LEWERS' RANCH—A very favorable month for crops. Fruit good.

MRS. ROSS LEWERS.

McAFEE'S RANCH—Heavy winds last of the month did much damage to gardens, and also made haying slow and expensive.

G. A. McAFEE.

RENO—This month notable for entire absence of precipitation, large number of clear days and incessant winds which blew every day, with one or two exceptions. Large forest fires in the mountains west of town from the 8th till end of the month.

ALFRED DOTEN.

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Rainbow—Fenelon, 21st.

Lightning—Fenelon, 21st.

Thunderstorms—Fenelon, 18th, 21st, 22d; Lee, 21st, 22d.

Light Frost—Carson City, 3d; Lee, 23d.

Killing Frost—Palisade, 6th, 7th; Tecoma, 7th; Beowawe,

High Winds—Golconda, 22d; Fenelon, 18th; Elko, 21st; Morey, 18th to 21st, 23d; Caliente, 5th; McAfee's Ranch, 17th to 31st; Martin's Ranch, 5th, 6th; Belmont, 4th to 6th, 19th to 23d; Candelaria, 1st, 5th, 6th; Lewers' Ranch, 5th to 7th; Palmetto, 19th to 23d; Silver Peak, 1st, 2d, 5th, 6th, 20th to 22d; Potts, 5th to 7th, 18th to 23d, 25th; Carlin, 5th to 7th, 18th; Winnemucca, 5th; Modena (Utah), 6th.

Week ending Monday, July 6th—The past week opened warm and closed unusually cool for this time of the year. Frost occurred on two or three mornings the last few days, doing more or less damage to tender vegetation in various parts of the State. Scattered showers and high winds were also prominent features of the week's weather. Reports of correspondents continue favorable and indicate that the principal crops are in excellent condition and making satisfactory progress. Haying is now general in all districts and a good crop is assured, exceeding the average yield in most localities. Wheat, rye, oats, barley, potatoes and garden vegetables are maturing nicely and look very promising. Fruit prospects continue excellent, especially the apple crop, which will be very fine this year. Small fruits are fairly abundant and gathering is now in progress. Live stock is doing well generally, although there is some complaint that the range feed is drying out in a few localities. The water supply is holding out well in all sections.

Week ending Monday, July 13th—The past week has been unseasonably cool. In the western part of the State the daily mean temperatures averaged about 7 degrees below normal, the maximum temperatures ranging from 72 to 83 degrees, and the minimum, from 36 to 53 degrees. In the northwest section a maximum of 87 degrees was recorded on the 10th, and a minimum of 33 degrees, on the 7th. Heavy frost was somewhat general throughout the State on the morning of the 7th and 8th, causing considerable damage to beans, corn, potato vines and other tender vegetation in many districts. There was about the normal amount of sunshine during the week, the weather being generally clear and rainless. The weather conditions have been favorable for harvesting operations, although the nights have been too cold for rapid growth. High winds retarded haying and did some damage to fruit and shade trees in a few northern districts. The first crop of alfalfa has been cut and stacked

over the earlier districts, while the first cutting is now under full headway in the eastern and northeastern sections; the yield is reported good to excellent in nearly all localities. Range feed is generally abundant, although there is complaint from a few places that it is drying up and becoming scarce. Gardens and potatoes doing well; grain crops look promising. Water plentiful, though rivers are falling fast.

Week ending Monday, July 20th—The weather during the past week has been generally clear, with warm days and cool nights. No frost or rain. Brisk to high afternoon winds have interfered with haying to some extent. Conditions have been exceptionally favorable to irrigated crops and for harvesting operations. Corn, potatoes and garden vegetables have rapidly reecovered from the damage caused by the recent cold snap and are reported to be looking well and growing nicely. Except in the more northerly distriets, the first crop of alfalfa has been secured in prime condition, the yield being reported extra heavy in many localities. The second crop is doing well and promises to be as heavy as the first crop. A heavy crop of wild hay is being cut in the western part of the State. Apricots, early apples and raspberries are ripe in the west portion and peas and new potatoes are ready for use in the northeastern portion. Corn is ripe in the extreme southeastern section. Barley is heading out in White Pine County. Reports indicate that the grain crops throughout the State look promising. Range feed is fairly good in all sections and stock of all kinds are doing well. The water supply is holding out well in all distriets.

Week ending Monday, July 27th—The weather of the past week was generally clear and moderately cool, with light frost in a few elevated localities on the morning of the 24th. In the western part of the State the average daily deficiency of temperature was about 5 degrees. Brisk winds prevailed nearly every afternoon, making hay hauling and stacking difficult. Light thunder showers occurred in Elko and White Pine Counties the early part of the week. The weather conditions were favorable to the grain crops and for work in the hay and grain fields, but the nights were a little too cool for corn and garden vegetables. Haying continues with satisfactory results, the yield being average or above in most localities. Barley and wheat are ripening rapidly and will soon be ready for the harvester. Reports indicate that range stock are doing well, although the feed is getting short in a few localities. There is complaint that worms, crickets and grasshoppers are doing some damage to garden and field crops in various parts of the State. Raspberries and early apples are ripe and being marketed.

75th Meridian Time.

Stations.	1 a.m.	2	3	4	5	6	7	8	9	10	11	12 noon	1 p.m.	2	3	4	5	6	7	8	9	10	11	12 midn't	For the month.
Carson City	6.2	6.0	5.6	5.6	5.1	4.1	3.5	3.2	3.1	2.5	2.8	3.5	5.2	6.5	8.8	9.5	10.6	12.3	12.6	12.6	11.3	10.1	8.3	7.1	6.9
Winnemucca	6.8	8.0	7.9	8.0	8.2	8.3	7.7	7.6	7.2	6.9	8.4	9.3	9.5	9.5	10.6	11.8	11.9	12.2	11.7	10.7	9.6	8.6	7.2	7.0	8.9
Modena (Utah)	9.1	9.5	9.5	8.9	9.0	9.4	9.8	9.6	8.7	7.8	9.4	12.0	16.1	18.9	20.1	21.0	22.5	21.1	21.3	21.5	20.7	17.4	11.7	9.4	13.5

[illegible]

CLIMATOLOGICAL DATA FOR JULY, 1903.

Stations	Counties	Elevation (feet)	Length of record (years)	Temperature (degrees Fahrenheit)							Precipitation (inches)				Sky				Observer	
				Mean.	Departure from the normal.	Highest	Date	Lowest	Date	Greatest fall in 24 hours	Total	Departure from the normal.	Greatest in 24 hours	Total since July 1, 1900	Number of rainy days	Number of clear days	Number of partly cloudy days	Number of overcast days		Prevailing wind
Northern Section.																				
Battle Mountain—1	Lander	1,511	33	69.1	8.0	100	20	32	7	36	0.00	-0.13	0.00	0	0	22	6	3	SW	Agent So. Pacific Co.
Beowawe—3	Eureka	4,635	33	70.7	-7.3	99	19	42	7		0.00	0.20	0.00	0	0				W	Agent So. Pacific Co.
Carlin—3	Elko	1,897	33	72.8	-0.2	99	20	40	3		0.00	0.17	0.00	0	0	25	5	1	SW	Agent So. Pacific Co.
Crane's Ranch†	Elko	5,300	16								0.00	0.31	0.00	0	0	29	2	0	W	W. T. Crane
Elko—1	Elko	5,063	33	65.6	-7.5	98	27	31	8	55	0.00	0.21	0.00	0	0	29	9	0	NE	C. H. Sproule
Fencelon—3	Elko	6,128	16	68.9	-6.7	93	11				0.30	+0.21	0.30	0	1	11	15	5	SW	Agent So. Pacific Co.
Golconda—3	Humboldt	1,392	25			96	22	53	1		0.00	-0.08	0.00	0	0	31	0	0		Agent So. Pacific Co.
Halleck—3	Elko	5,229	31	72.5	-0.1	96	15	46	7		T	0.10	T	0	0	29	0	2	SW	Agent So. Pacific Co.
Humboldt—1	Humboldt	1,236	32	68.0	-6.0	93	18	36	7	39	0.00	0.02	0.00	0	0	30	1	0	S	Agent So. Pacific Co.
Lee	Elko		5								0.01	0.50	0.01	0	1	18	12	1	SE	Miss Jennie Williams
Lovelock—1	Humboldt	3,977	12								0.00	-0.02	0.00	0	0	25	6	0	SW	Agent So. Pacific Co.
Mill City—3	Humboldt	1,225	15	73.2	-2.1	96	19	60	17		0.00	-0.09	0.00	0	0	31	0	0		Agent So. Pacific Co.
Palisade—1	Eureka	1,821	22								0.00	-0.13	0.00	0	0	31	0	0		Agent So. Pacific Co.
Quinn River Ranch*—1	Humboldt	1,830	2																	F. M. Payne
Tecoma—1	Elko	1,812	26	63.1	-8.6	98	11	32	7	51	0.00	-0.20	0.00	0	0	20	8	3	SW	Agent So. Pacific Co.
Toano—3	Elko	5,975	31			107	13	42	2		0.00	-0.25	0.00	0	0	31	0	0	SW	Agent So. Pacific Co.
Wells—3	Elko	5,623	32	70.2	-2.8	94	18	45	3		0.00	-0.23	0.00	0	0					Agent So. Pacific Co.
Winnemucca—1	Humboldt	4,432	25	66.2	-5.2	90	18	33	7	41	T	-0.15	T	0	0	26	5	0	NE	U. S. Weather Bureau
Wood—1	Elko	6,000	1	63.1		91	12	31	3	48	0.04		0.04	0	1	22	9	0	W	A. H. Wiseman
Eastern Section.		Means		69.2	-5.0						-0.02	0.15			0	26	5	0	SW	
Ely—1	White Pine	6,000	16	65.6	-1.7	92	12	35	3	49	T	-0.57	T	0	0	28	3	0	SW	Chas. S. Grunditz
Hamilton—1	White Pine	7,977	3																	Mrs. J. F. Beck
Monitor Mill—1	White Pine	6,100	5																	Jas. B. Orr
Central Section.		Means		65.6	-1.7						T	-0.57		0	0	28	3	0	SW	
Austin—1	Lander	6,594	15	65.4	-3.5	87	28	37	2	41	0.00	-0.51	0.00	0	0					H. W. Dyer
Eureka—1	Eureka	6,980	1	67.0		93	28	33	8	53	0.00		0.00	0	0	27	4	0	N	D. M. Broy
Potts—1	Nye	6,826	11	63.4	-13.0	100	31	26	7	62	0.00	-0.82	0.00	0	0	18	6	7	S	Miss Bessie Potts
Western Section.		Means		65.3	-8.2						0.00	-0.66		0	0	22	5	1		
Carson City—2	Ormsby	4,660	24	63.0	-5.0	90	28	33	7	46	0.00	-0.17	0.00	0	0	29	2	0	SW	C. W. Friend
Carson City (W. B.)—1	Ormsby	4,720	14	63.6	-4.4	89	28	35	7	41	0.00	-0.17	0.00	0	0	29	2	0	W	U. S. Weather Bureau
Fallon—1	Churchill			67.6		92	18	38	7	44	0.00		0.00	0	0					Mrs. Ida Dolf
Lewers' Ranch‡—1	Washoe	5,200	16	62.7	-6.1	87	31	35	7	40	0.00	-0.20	0.00	0	0	28	3	0	SW	Mrs. Ross Lewers
Martin's Ranch§—1	Douglas	4,830	5	66.2	-4.4	91	28	33	7	48	0.00	-0.17	0.00	0	0	31	0	0	SW	Mrs. J. H. Martin
Reno—1	Washoe	4,484	33	65.0	-8.1	90	27	36	7	43	0.00	-0.08	0.00	0	0	28	3	0	SW	State University
Wabuska—1	Lyon	4,347	1	63.8		100	29	32	3	58	0.00		0.00	0	0	29	1	1	SE	J. H. Harcourt
Wadsworth—1	Washoe	4,077	32	68.8		91	24	40	5	47	0.00	-0.22	0.00	0	0	31	0	0	W	Agent So. Pacific Co.
Southern Section.		Means		65.1	-5.6						0.00	-0.17				29	2	0	SW	
Belmont—1	Nye	8,132	12	65.8	-2.8	87	11	35	6	42	0.00	-0.53	0.00	0	0	31	0	0	SW	W. N. Granger
Candelaria—1	Esmeralda	5,783	14	71.5	-2.9	91	29	47	7	32	0.00	-0.36	0.00	0	0	28	3	0	E	A. G. Draper
Caliente—1	Lincoln			73.6		104	3	42	8	58	0.01		0.01	0	0	1				E. W. Clark
Hawthorne—1	Esmeralda	4,569	16	71.4	-3.2	95	12	45	3	41	0.00	-0.27	0.00	0	0	26	4	1	N	T. G. Watterson
McAfee's Ranch—1	Esmeralda	4,835		66.0		96	2	33	9	60	0.00		0.00	0	0					G. A. McAfee
Morey—1	Nye	7,384		70.2		102	28	36	7	52	T		T	0	0	20	11	0	S	Jas. B. Gilmore
Palmetto—1	Esmeralda	6,500	14	63.0	-3.8	92	1	32	3	46	0.00	-1.15	0.00	0	0	30	1	0	E	Wm. Oothout, Jr.
Rioville—1	Lincoln			87.2		111	28	60	4	41	0.16		0.10	0	0	2				Daniel Bonelli
Silver Peak—1	Esmeralda	4,382	8	75.5		99	1	51	3	46	0.00		0.00	0	0	31	0	0	SE	Joseph Hand
Sodaville—1	Esmeralda	4,065	5	76.1		102	11	42	5	47	0.00		0.00	0	0	28	3	0	N	Agent So. Pacific Co.
		Means		72.0	-3.2						0.02	-0.58				28	3	0		
State Means				65.4	-4.8						-0.01	-0.43			1	27	3	1	SW	State Means
Miscellaneous.																				
Modena (Utah)—1	Iron	5,470	2	68.8		93	28	39	4	44	0.14		0.07	0	3	23	6	2	SW	U. S. Weather Bureau

REFERENCES: 1. Weather Bureau maximum and minimum thermometers in use; 2. self-registering maximum and minimum thermometers, not Weather Bureau, in use; 3. means and extremes of temperature from observations by ordinary thermometers at 7 a. m., 2 p. m., and 9 p. m. A small letter placed before the name of a station, or against the data in the body of the form, indicates the number of days missing from the record; for instance, "n" denotes 14 days missing. *Italic figures* indicate that the maximum or minimum occurred on several dates. T indicates trace of precipitation. All records are used in determining State and district means, but State and district departures are determined by comparison of current data of only such stations as have normals.

* Not considered in computing State or district means.

† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. ¶ Postoffice—Elko. * Postoffice—Amos.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JULY, 1903.

Stations.	Day of Month.																															Monthly Means.		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Austin.....	Max. 78	78	67	77	79	81	77	72	77	80	85	83	81	82	82	77	79	81	83	83	83	81	80	80	80	82	85	86	87	85	82	78	80.3	
Battle Mountain.....	Min. 45	37	40	41	43	40	87	37	47	50	55	54	50	50	54	55	54	51	53	61	57	61	56	56	54	54	54	56	56	56	53	51	50.5	
Belmont.....	Max. 92	78	80	92	90	86	82	90	92	93	97	98	95	95	96	94	95	97	97	97	99	99	97	97	99	97	98	99	97	99	90	90	93.7	
Belmont.....	Min. 42	38	38	40	35	38	32	40	40	47	45	42	45	45	48	57	50	49	52	50	50	52	57	54	47	44	41	41	47	50	50	45.7		
Caliente.....	Max. 85	69	72	79	81	72	74	74	80	82	87	84	81	85	86	85	82	83	84	80	84	79	81	81	85	84	87	87	87	86	84	81.8		
Caliente.....	Min. 43	36	49	53	51	35	43	44	48	50	51	50	51	53	53	50	52	52	54	54	54	54	52	52	53	52	52	52	52	52	52	49.8		
Candelaria.....	Max. 103	89	104	100	98	98	98	100	100	98	98	98	98	98	96	95	98	98	98	94	94	98	98	102	103	102	102	103	101	101	98	97.5		
Candelaria.....	Min. 55	45	53	48	48	48	50	42	42	49	48	48	54	48	55	59	50	50	48	54	52	57	55	56	50	48	47	47	47	47	45	50	49.6	
Carson City.....	Max. 90	85	73	86	88	81	75	78	83	85	89	88	85	85	88	82	83	85	86	84	84	84	84	82	82	86	86	86	86	86	91	90	88	84.8
Carson City.....	Min. 63	51	48	54	62	57	47	51	53	57	60	59	57	57	61	59	58	59	60	61	62	63	60	61	59	60	59	62	61	61	61	63	58.2	
Carson City.....	Max. 84	71	79	81	77	67	75	77	81	85	85	82	80	84	83	82	88	85	83	85	85	80	74	82	84	84	84	88	80	87	86	85	81.9	
Carson City (W. B.).....	Min. 45	46	35	38	36	46	33	37	40	39	43	43	51	40	55	45	44	43	43	43	42	39	50	41	44	45	45	48	45	41	51	41.0		
Carson City (W. B.).....	Max. 83	68	76	78	75	65	74	78	83	81	80	77	82	79	80	87	81	84	86	84	83	79	71	81	82	82	86	89	87	85	83	83	79.8	
Carson City (W. B.).....	Min. 49	48	39	43	43	48	35	40	44	44	48	49	53	42	58	48	46	46	46	46	46	46	44	55	43	48	50	47	49	50	46	52	47.3	
Elko.....	Max. 78	76	79	80	78	68	70	71	79	83	86	89	95	92	92	96	93	93	94	96	93	96	92	92	96	97	96	98	93	94	92	96	88.4	
Elko.....	Min. 44	36	38	36	37	34	29	31	36	40	41	41	40	40	42	46	45	50	55	54	52	59	58	42	49	43	41	41	41	43	41	41	42.9	
Ely.....	Max. 86	77	66	82	85	82	79	85	88	90	92	88	84	85	86	88	87	85	84	84	85	87	88	84	85	87	88	90	92	91	89	81	85.2	
Ely.....	Min. 50	44	35	36	36	40	36	38	40	43	45	45	50	46	54	49	51	48	47	50	48	52	50	49	48	50	47	50	52	52	52	48	46.1	
Eureka.....	Max. 86	83	84	85	83	90	85	86	86	90	91	90	91	89	88	82	84	85	86	84	80	83	82	84	89	92	91	93	92	92	93	87.0		
Eureka.....	Min. 51	37	35	36	39	37	33	33	34	46	46	51	50	48	50	53	47	53	52	52	51	48	47	49	52	53	54	52	57	55	56	47.1		
Fallon.....	Max. 88	71	78	87	85	72	76	80	85	87	91	90	87	88	89	84	86	92	87	82	90	90	83	85	89	88	90	92	90	92	87	86.1		
Fallon.....	Min. 48	43	42	43	55	50	38	43	45	48	53	50	48	49	55	55	49	50	53	50	55	47	49	43	48	52	50	50	52	52	55	49.0		
Halleck*.....	Max. 88	86	88	90	90	86	85	90	90	90	95	94	94	92	96	96	94	90	94	94	91	90	85	90	90	93	90	93	90	95	93	93	91.0	
Halleck*.....	Min. 65	58	58	48	48	52	46	50	50	54	60	54	54	52	56	56	54	50	54	54	64	62	60	60	60	60	62	58	54	54	54	54	54.9	
Hamilton.....	Max. 78	76	87	80	78	75	70	78	82	87	90	87	84	85	85	85	86	86	88	88	90	89	89	87	86	88	89	90	92	87	80	84.8		
Hamilton.....	Min. 50	51	50	44	40	38	36	40	40	51	53	50	46	47	48	63	62	60	60	56	58	55	55	50	48	54	58	57	52	53	54	50	51.1	
Humboldt.....	Max. 88	94	74	78	91	91	80	82	80	85	85	95	90	85	85	87	89	84	85	86	81	80	83	82	84	89	92	91	93	92	92	93	87.0	
Humboldt.....	Min. 54	45	45	47	61	50	45	47	51	56	58	55	55	54	55	59	58	55	58	58	60	59	55	52	56	56	58	58	56	63	55	55	55.1	
Hawthorne.....	Max. 82	75	80	80	74	65	72	75	78	81	79	77	81	78	81	85	80	79	80	79	82	76	71	81	82	84	85	86	85	86	87	79.4		
Hawthorne.....	Min. 48	38	40	45	54	47	35	39	43	43	47	46	50	41	55	45	49	51	45	46	51	44	53	39	45	47	47	47	49	48	48	47	46.0	
Lewers' Ranch.....	Max. 78	79	84	83	78	73	80	82	86	89	90	85	86	89	85	84	89	88	87	88	84	84	81	80	85	88	90	91	91	88	88	88	85.0	
Lewers' Ranch.....	Min. 67	62	36	42	61	49	33	38	40	42	43	44	45	41	44	42	41	40	44	42	42	47	44	57	37	43	43	43	46	46	76	76	47.3	
Lewers' Ranch.....	Max. 94	96	90	90	90	90	92	90	89	90	91	89	90	91	89	85	89	87	88	87	88	80	80	78	78	81	82	86	88	90	88	90	89.8	
Lewers' Ranch.....	Min. 55	48	40	35	43	40	41	40	33	40	40	38	42	53	46	61	40	40	40	41	48	57	50	50	40	40	40	40	42	46	48	48	42.2	
Lewers' Ranch.....	Max. 87	75	84	88	90	81	87	87	93	94	98	97	94	98	94	92	89	95	95	86	89	91	89	89	93	96	100	102	96	92	95	95	91.7	
Lewers' Ranch.....	Min. 54	39	39	48	51	55	36	42	47	47	52	49	52	47	53	51	53	49	47	51	46	51	55	55	50	49	48	51	55	53	50	48.8		
Lewers' Ranch.....	Max. 92	70	73	82	83	80	72	78	82	83	85	83	85	86	81	81	82	81	80	80	80	80	80	78	78	81	82	86	88	90	88	90	81.9	
Lewers' Ranch.....	Min. 52	53	32	42	44	57	33	36	40	46	40	39	40	41	47	48	42	46	43	48	57	50	50	50	40	40	40	40	44	47	46	48	44.2	
Monitor Mill.....	Max. 87	75	84	88	90	81	87	87	93	94	98	97	94	98	94	92	89	95	95	86	89	91	89	89	93	96	100	102	96	92	95	100	89.6	
Monitor Mill.....	Min. 54	39	39	48	51	55	36	42	47	47	52	49	52	47	53	51	53	49	47	51	46	51	55	55	50	49	48	51	55	53	50	48.8		
Monitor Mill.....	Max. 92	70	73	82	83	80	72	78	82	83	85	83	85	86	81	81	8																	

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DAILY PRECIPITATION FOR JULY, 1903.

[illegible]

* Precipitation included in that of following day.

CARSON CITY, NEVADA:

STATE PRINTING OFFICE, - ANDREW MAUTE, SUPT.



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U. S. DEPARTMENT OF AGRICULTURE.

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REPORT FOR AUGUST, 1903.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

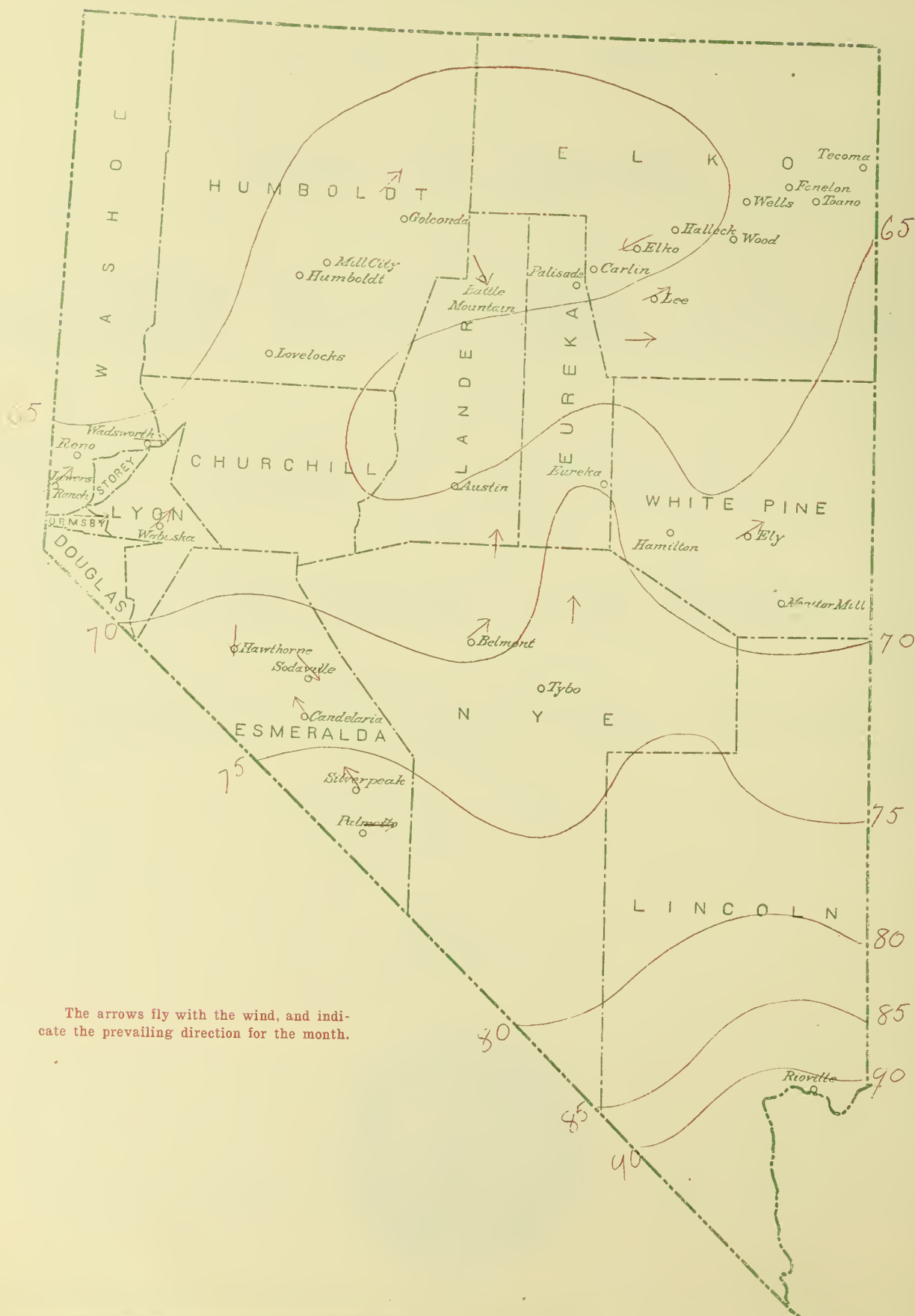
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR AUGUST, 1903.



The arrows fly with the wind, and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH Section Director.

CARSON CITY, NEVADA.

VOL. XVII.

CARSON CITY, NEVADA

No. 8

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.87 inches.

The highest pressure, 30.15 inches, was recorded at Winnemucca, on the 27th, and the lowest, 29.56 inches, at Modena, Utah, on the 23d.

The absolute range of pressure for the State was 0.59 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, determined from the reports of thirty-six stations, was 69.7, or 0.1 below normal.

By sections, the means were: Northern, 70.5; eastern, 68.4; central, 67.8; western, 67.2; southern, 74.6.

The highest monthly mean, 91.6, was recorded at Rioville, Lincoln County.

The lowest monthly mean, 63.7, was recorded at Wadsworth, Washoe County.

The highest temperature recorded during the month was 114, at Rioville, Lincoln County, on the 20th.

The lowest temperature recorded during the month was 28, at Potts, Nye County, on the 25th.

The absolute range of temperature for the State was 86.

The greatest local daily range of temperature at stations equipped with self-registering thermometers was 63, at Elko, Elko County, on the 7th, and Potts, Nye County, on the 9th.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 0.10 of an inch, or 0.44 of an inch below normal, and 0.12 of an inch below the average for the corresponding month of 1902.

By sections, the averages were as follows: Northern, 0.06 of an inch; eastern, 0.18 of an inch; western, 0.02 of an inch; central, 0.17 of an inch; southern, 0.09 of an inch.

The greatest monthly amount, 0.58 of an inch, was recorded at Rioville, Lincoln County, and the least, none, at several stations.

The greatest amount recorded in any twenty-four consecutive hours was 0.30 of an inch at Austin, Lander County, and Rioville, Lincoln County, on the 19th.

Relative Humidity.

Carson City—8 a. m., 48 per cent; 8 p. m., 26 per cent; monthly mean, 37 per cent.

Winnemucca—8 a. m., 56 per cent; 8 p. m., 29 per cent; monthly mean, 43 per cent.

Modena (Utah)—8 a. m., 48 per cent; 8 p. m., 24 per cent; monthly mean, 36 per cent.

Wind and Weather.

The prevailing direction of the wind was from the south-west.

The total movement of the wind at Carson City was 5,141 miles; at Winnemucca, 5,582 miles, and at Modena (Utah), 9,031 miles.

The maximum velocity at Carson City was 30 miles per hour, from the southwest, on the 25th; at Winnemucca, 32 miles per hour, from the west, on the 2d, and 44 miles per hour, from the southwest, at Modena (Utah), on the 25th.

The average number of clear days was 24; partly cloudy, 6; cloudy, 1; days with .01 of an inch or more of precipitation, 1.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR AUGUST DURING THE PAST FIFTEEN YEARS.

Year.	Temperature			Average Precipitation, Inches and 100ths.
	Mean.	Highest.	Lowest.	
1889	73.2	117	29	1.06
1890	70.1	109	28	2.06
1891	72.0	101	25	0.44
1892	71.2	105	20	0.01
1893	71.1	104	25	0.26
1894	71.0	105	30	0.45
1895	70.6	112	24	0.63
1896	69.0	109	34	0.82
1897	73.3	110	31	0.31
1898	73.6	112	29	0.45
1899	63.7	99	20	0.82
1900	66.6	110	30	0.04
1901	68.3	101	29	2.05
1902	68.9	117	30	0.22
1903	69.7	114	28	0.10

OBSERVERS' REMARKS.

ELKO—An exceedingly hot month; very dry; evaporation largest known in years. C. H. SPROULE.

LEE—Extremely warm during the greater part of the month; cooler last few days. MISS JENNIE WILLIAMS.

WOOD—It has been a very dry and windy month; wind blowing nearly every afternoon. A. H. WISEMAN.

McAFEE'S RANCH (near Dyer)—Second crop of alfalfa rather light; vegetables a light crop; grain a very light yield. G. A. McAFEE.

RENO—Month very dry and windy. Temperature somewhat below normal. Light frost on meadows on the 26th. Forest fires did much damage to timber in the mountains west and northwest of town. ALFRED DOTEN.

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Sandstorms—Rioville, 7th.

Light Frost—Reno, 26th.

Killing Frost—Potts, 25th; McAfee's Ranch (near Dyer), 29th.

Thunderstorms—Lee, 19th; Potts, 19th; Palmetto, 8th, 13th; Candelaria, 11th, 17th, 19th; Morey, 11th, 12th, 13th, 19th.

High Winds—Candelaria, 25th; Potts, 25th; Palmetto, 13th; Silver Peak, 10th, 11th, 12th, 19th, 25th; Beowawe, 25th, 28th; Reno, 19th; Dyer (near), 18th, 19th, 20th, 21st, 22d, 23d, 24th, 25th; Rioville, 20th; Carson City, 25th; Winnemucca, 2d.

[illegible]

CLIMATOLOGICAL DATA FOR AUGUST, 1903.

Stations	Counties	Temperature (degrees Fahrenheit)										Precipitation (inches)				Sky				Observer
		Elevation (feet)	Length of record (years)	Mean	Departure from the normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from the normal	Greatest in 4 hours	Total snowfall (inches)	Number rainy days	Number clear days	Number partly cloudy days	Number overcast days	Prevailing direction of wind	
Northern Section.																				
Battle Mountain—1	Lander	1,511	33	71.5	-3.2	106	18	38	26		0.00	-0.12	0.00	0	0	25	5	1		Agent So. Pacific Co.
Beowawe—3	Eureka	4,695	33	73.0	-1.9	101	18	47	27		0.00	-0.12	0.00	0	0				W	Agent So. Pacific Co.
Carlin—3	Elko	1,897	33	65.6	-3.8	88	11	40	31		0.00	-0.17	0.00	0	0	31	0	0		Agent So. Pacific Co.
Crane's Ranch†	Elko	5,350	16								0.14	-0.13	0.09	0	3	27	1	0	W	W. T. Crane
Elko—1	Elko	5,063	33	66.4	-4.0	100	5	33	27	63	T	0.16	T	0	0	20	10	0	NE	C. H. Sproule
Fenelon—3	Elko	6,128	16	71.7	+1.7	95	7	53	26		0.05	-0.29	0.03	0	2	15	10	6	SW	Agent So. Pacific Co.
Golconda—3	Humboldt	4,392	25	76.4	-0.3	98	17	45	28		T	0.05	T	0	0	29	1	1		Agent So. Pacific Co.
Halleck—3	Elko	5,229	31	72.9	+3.1	101	9	46	25		T	0.17	T	0	0	25	6	0	SW	Agent So. Pacific Co.
Humboldt—1	Humboldt	1,236	32	69.4		96	8	38	25	41	T	-0.03	T	0	0	28	2	1		Agent So. Pacific Co.
Lee	Elko		5								0.30	-0.27	0.12	0	3	21	7	3	SE	Miss Jennie Williams
Lovelock—1	Humboldt	3,977	12								0.00		0.00	0	0	21	3	7		Agent So. Pacific Co.
Mill City—3	Humboldt	4,225	15	71.7		100	10	50	26		0.00	-0.12	0.00	0	0	23	3	5		Agent So. Pacific Co.
Palisade—1	Eureka	4,821	22	76.2	+3.2	100	19	42	7	53	0.18	-0.03	0.15	0	2	23		8		Agent So. Pacific Co.
Quinn River Ranch—1	Humboldt	4,850	2																	F. M. Payne
Tecoma—1	Elko	4,812	26	70.0	-0.6	99	17	35	27	54	0.00	-0.14	0.00	0	0	31	0	0		Agent So. Pacific Co.
Toano—3	Elko	5,975	31								0.31	+0.11	0.25	0	2	28	1	2	SW	Agent So. Pacific Co.
Wells—3	Elko	5,623	32	68.5	-3.3	92	3	45	11		0.00	-0.22	0.00	0	0					Agent So. Pacific Co.
Winnemucca—1	Humboldt	4,432	25	67.6	-3.0	96	18	34	26	47	0.05	-0.03	0.05	0	1	29	1	1	SW	U. S. Weather Bureau
Wood—1	Elko	6,000	4	66.0		93	17	36	27	48	0.11		0.11	0	1	23	8	0		A. H. Wiseman
Eastern Section.		Means		70.5	-1.1						0.06	-0.14			1	25	4	2	SW	
Ely—1	White Pine	6,000	16	68.4	+3.9	94	7	36	27	46	0.18	-0.95	0.09	0	2	23	8	0	SW	Chas. S. Grunditz
Hamilton—1	White Pine	7,977	3																	Mrs. J. F. Beck
Monitor Mill—1	White Pine	6,400	5																	Jas. B. Orr
Central Section.		Means		68.4	+3.9						0.18	-0.95		0	2	23	8	0	SW	
Austin—1	Lander	6,594	15	67.6	-1.6	88	18	39	26	37	0.30	-0.16	0.30	0	1					H. W. Dyer
Eureka—1	Eureka	6,900	1	71.1		95	9	38	27	46	T		T	0	0	23	6	2	N	D. M. Broy
Potts—1	Nye	6,826	11	63.8		100	1	28	25	63	0.20	-0.43	0.20	0	1	16	8	7	S	Miss Bessie Potts
Western Section.		Means		67.8	-1.6						0.17	-0.29		0	1	20	7	4		
Carson City—2	Ormsby	4,660	24	64.7	-2.1	94	8	36	30	49	T	-0.13	T	0	0	29	2	0	SW	C. W. Friend
Carson City (W. B.)—1	Ormsby	4,720	14	66.0	0.8	92	8	40	27	44	T	-0.13	T	0	0	28	1	2	W	U. S. Weather Bureau
Fallon—1	Churchill			69.4		97	11	40	26	59	0.00		0.00	0	0					Mrs. Ida Dolf
Lewers' Ranch†—1	Washoe	5,200	16	67.2	-2.3	94	8	36	26	47	0.09	-0.17	0.09	0	1	25	6	0	SW	Mrs. Ross Lewers
Martin's Ranch‡—1	Douglas	4,830	5	72.5	+2.2	98	18	34	29		0.00	-0.13	0.00	0	0	24	6	1	SW	Mrs. J. H. Martin
Reno—1	Washoe	4,484	33	67.3	-3.1	93	7	38	26	44	0.01	-0.05	0.01	0	1	27	3	1	NW	State University
Wabusca—1	Lyon	4,347	1	66.7		98	7	32	29	55	T		T	0	0	26	2	3	SW	J. H. Harcourt
Wadsworth—1	Washoe	4,077	32	63.7		99	8	40	20		0.00	-0.10	0.00	0	0				W	Agent So. Pacific Co.
Southern Section.		Means		67.2	-1.2						0.02	-0.12		0	0	26	4	1	SW	
Belmont—1	Nye	8,132	12	67.9	+0.9	91	7	41	25	36	0.00	-0.78	0.00	0	0	26	5	0	SW	W. N. Granger
Candelaria—1	Esmeralda	5,783	14	73.9	-0.1	94	18	47	26	32	0.02	-0.33	0.02	0	1	20	9	2	SE	A. G. Draper
Caliente—1	Lincoln			76.6		105	6	44	31	59	0.00		0.00	0	0					E. W. Clark
Hawthorne—1	Esmeralda	4,569	16	73.4	-2.7	100	20	47	26	42	0.00	-0.45	0.00	0	0	22	6	3	N	T. G. Watterson
McAfee's Ranch—1	Esmeralda	4,835		67.6		97	9	32	29	62	0.00		0.00	0	0				S	G. A. McAfee
Morey—1	Nye	7,384		72.4		103	7	42	26	49	0.05		0.05	0	1	17	14	0	S	Jas. B. Gilmore
Palmetto—1	Esmeralda	6,500	14	65.8	-0.4	92	7	37	26	44	0.18	-1.32	0.15	0	2	20	11	0	W	Wm. Oothout, Jr.
Rioville—1	Lincoln			91.6		114	20	66	27	42	0.58		0.30	0	3					Daniel Bonelli
Silver Peak—1	Esmeralda	4,382	8	77.8		102	8	49	30	47	0.00		0.00	0	0	31	0	0	SE	Joseph Hand
Sodaville—1	Esmeralda	4,665	5	78.8		107	20	49	26	45	0.05		0.05	0	1	27	4	0		Agent So. Pacific Co.
State Means				74.6	-0.6						0.09	-0.72		0	1	24	7	0	S	
Miscellaneous.																				
Modena (Utah)—1.	Iron	5,470	2	72.0		94	6	43	28	45	0.92		0.23	0	7	22	9	0	sw	U. S. Weather Bureau

REFERENCES: 1, Weather Bureau maximum and minimum thermometers in use; 2, self-registering maximum and minimum thermometers, not Weather Bureau, in use; 3, means and extremes of temperature from observations by ordinary thermometers at 7 a. m., 2 p. m., and 9 p. m. A small letter placed before the name of a station, or against the data in the body of the form, indicates the number of days missing from the record; for instance, "n" denotes 14 days missing. *Italic figures* indicate that the maximum or minimum occurred on several dates. T indicates trace of precipitation. All records are used in determining State (or district) means, but the mean departures from normal temperature and precipitation are based only on records from stations that have ten or more years of observation.

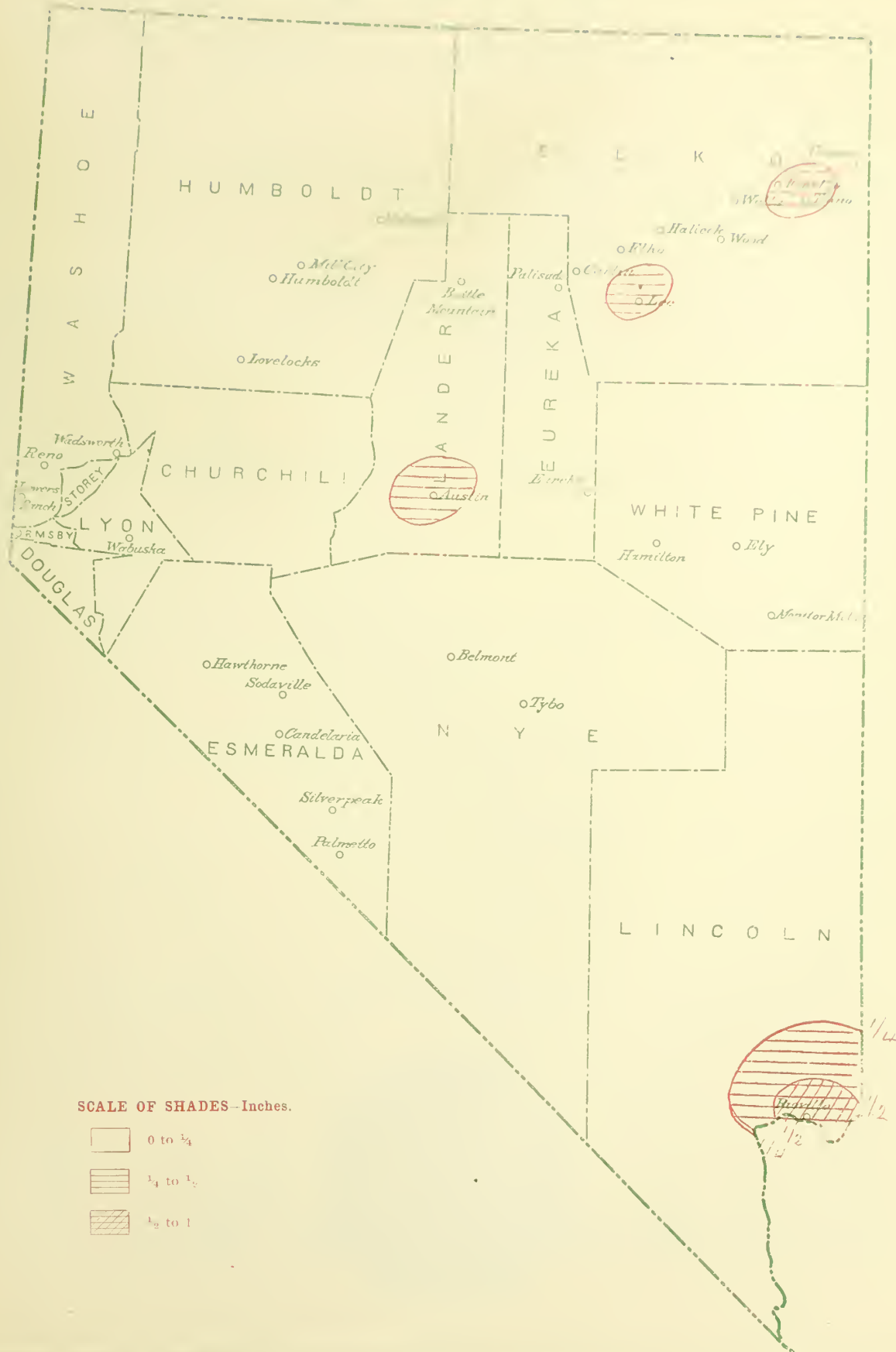
* Not considered in computing State or district means.

† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. ¶ Postoffice—Elko. ¶ Postoffice—Amos.

Day of Month.

*Extremes of temperature from readings of ordinary thermometer at 7 a. m., 2 p. m., and 9 p. m.

TOTAL PRECIPITATION FOR AUGUST, 1903



DAILY PRECIPITATION FOR AUGUST, 1903.

[illegible]

T indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA:

STATE PRINTING OFFICE, - - ANDREW MAUTE, SUPT.



1903

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR SEPTEMBER, 1903.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

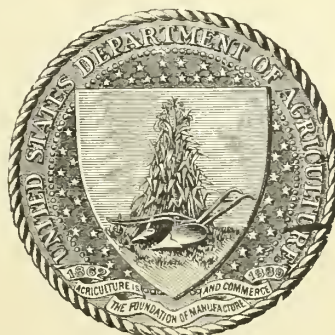
CHIEF OF WEATHER BUREAU,

BY

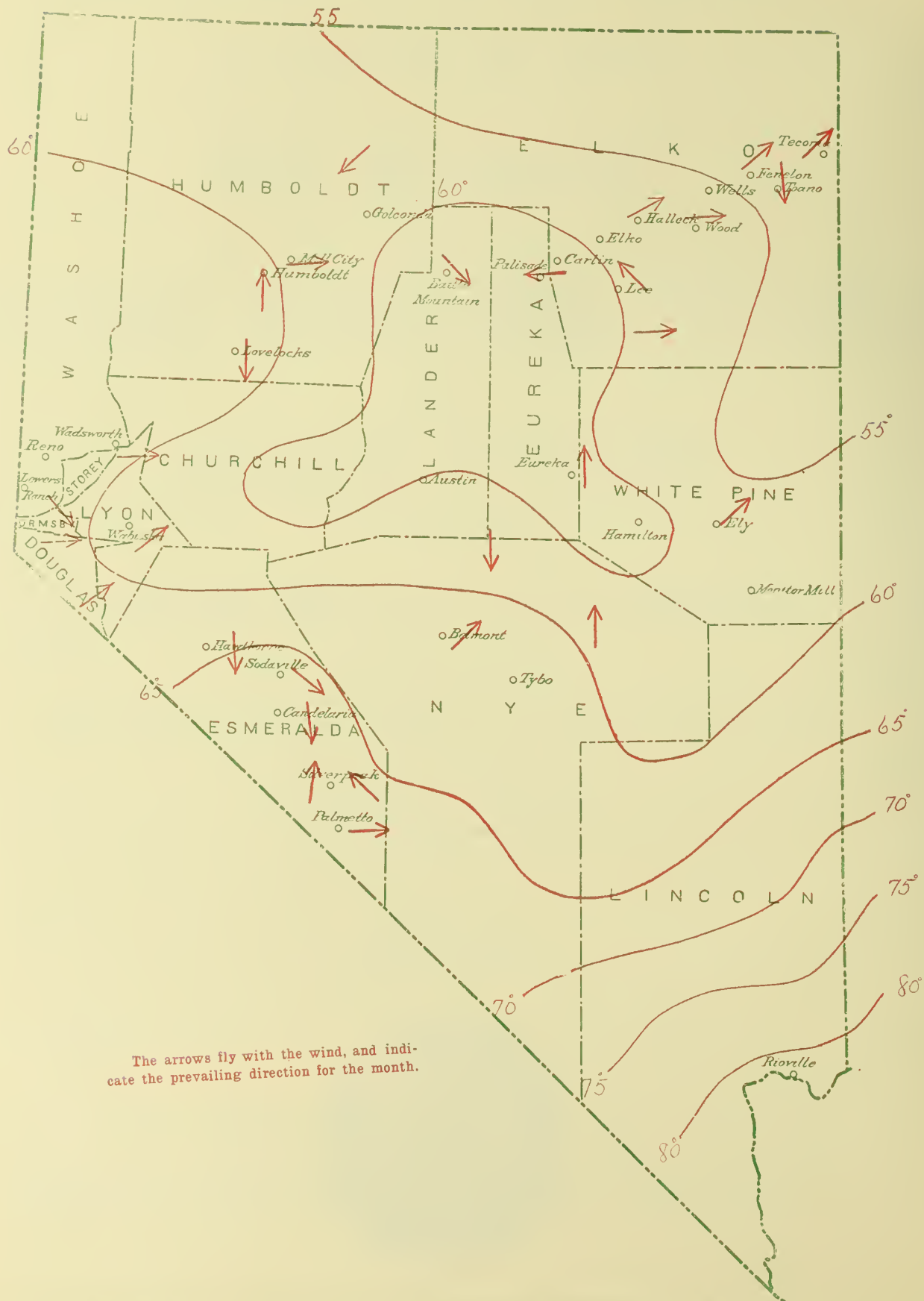
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR SEPTEMBER, 1903.



The arrows fly with the wind, and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director.

CARSON CITY, NEVADA.

VOL. XVII

CARSON CITY, NEVADA.

No. 9.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 29.93 inches.

The highest pressure, 30.34 inches, was recorded at Winnemucca, on the 9th, and the lowest, 29.49 inches, at Winnemucca, on the 12th.

The absolute range of pressure for the State was 0.85 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, determined from the reports of thirty-three stations, was 60.2, or about 1 below normal, and 1.5 lower than the mean for the corresponding month in 1902.

By sections, the means were as follows: Northern, 59.4; eastern, 50; central, 57.3; western, 59.8; southern, 63.1.

The highest monthly mean, 80.0, was recorded at Rioville, Lincoln County.

The lowest monthly mean, 54.4, was recorded at Potts, Nye County.

The highest temperature, 114, was recorded at Rioville, Lincoln County, on the 1st.

The lowest temperature, 17, was recorded at Potts, Nye County, on the 15th.

The absolute range of temperature for the State was 97.

The greatest local daily range of temperature, 66, was recorded at Potts, Nye county, on the 18th.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 0.18 of an inch, or 0.23 of an inch below normal.

By sections, the averages were as follows: Northern, 0.11 of an inch; eastern, 1.10 inches; central, 0.08 of an inch; western, 0.02 of an inch; southern, 0.35 of an inch.

The greatest monthly amount, 1.50 inches, was recorded at Morey, Nye County, and the least, none, at several stations.

Relative Humidity.

Carson City—8 a. m., 62 per cent; 8 p. m., 32 per cent; monthly mean, 47 per cent.

Winnemucca—8 a. m., 54 per cent; 8 p. m., 26 per cent; monthly mean, 40 per cent.

Modena (Utah)—8 a. m., 57 per cent; 8 p. m., 25 per cent; monthly mean, 41 per cent.

Wind and Weather.

The prevailing direction of the wind was from the southwest.

The total movement of the wind at Carson City was 4,041 miles; at Winnemucca, 5,253 miles, and at Modena (Utah), 7,268 miles.

The maximum velocity at Carson City was 33 miles per hour, from the southwest, on the 5th; at Winnemucca 44 miles per hour, from the southwest, on the 5th, and 60 miles per hour, from the southwest, at Modena (Utah), on the 5th.

The average number of clear days was 22; partly cloudy, 5; cloudy, 3; days with .01 of an inch or more of precipitation, 1.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR SEPTEMBER DURING THE PAST FIFTEEN YEARS.

Year	Mean.	Temperature Highest	Lowest	Average Precipitation, Inches and Hundredths.
1889	61.7	110	13	0.55
1890	64.2	110	18	0.81
1891	58.9	98	5	0.91
1892	62.8	109	15	0.09
1893	57.5	99	16	0.51
1894	58.4	96	10	0.35
1895	59.9	106	0	0.27
1896	58.3	102	15	0.35
1897	60.4	105	21	0.16
1898	61.1	97	18	0.20
1899	63.0	98	24	0.05
1900	56.1	99	17	0.30
1901	56.2	95	20	0.39
1902	61.7	113	10	0.21
1903	60.2	114	17	0.18

OBSERVERS' REMARKS.

RIOVILLE—More moisture in the air than usual this month, and rather cool. DANIEL BONELLI.

CARSON CITY—Smoky from 9th to 29th from forest fires in the mountains west of Lake Tahoe. C. W. FRIEND.

LEE—The weather throughout the month has been quite cold, with more or less wind and but little rain.

MISS JENNIE WILLIAMS.

RENO—Forest fires very prevalent. For over a week, beginning September 16th, the mountains were scarcely visible in any direction, and the valley was filled with smoke. Killing frost morning of the 14th, and light snow-fall on the mountains. Light rainfall on the 13th and 30th.

ALFRED DOTEN.

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Dense Fog—Pahmetto, 29th.

Lunar Halos—Carson City, 5th.

Thunderstorms—Morey, 2d, 3d, 4th, 30th; Pahmetto, 2d, 3d, 25th, 28th; McAfee's Ranch, 29th, 30th; Belmont, 2d, 3d, 28th, 29th; Sodaville, 28th, 29th, 30th; Lee, 30th; Palisade, 30th; Rioville, 23d.

High Winds—Candelaria, 5th, 10th, 12th; Ely, 5th; Elko, 5th; Eureka, 5th; Lewers' Ranch, 5th, 6th; Martin's Ranch, 4th, 5th, 10th, 12th, 13th; Wabaska, 11th, 12th; Carson City, 5th; Winnemucca, 5th.

Killing Frost—Battle Mountain, 9th; Anstin, 14th; Belmont, 11th; Carson City, 14th, 15th, 16th, 17th; Elko, 8th; Fenelon, 14th; Halleck, 9th; Lee, 7th, 8th, 9th, 10th, 11th, 12th; Lewers' Ranch, 14th; Wood, 8th; Lovelock, 15th; Wabaska, 12th; Martin's Ranch, 13th; McAfee's Ranch, 11th; Morey, 12th; Pahmetto, 13th, 14th, 15th, 16th; Winnemucca, 14th; Wadsworth, 16th; Potts, 8th, 9th, 10th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 29th.

WEATHER AND CROPS.

Week ending Monday, September 7, 1903—The temperature during the past week was slightly above normal up to the 4th, but the last three days were very much cooler. The percentage of sunshine was about normal. High winds prevailed on the 4th and 5th. With the exception of a few windy days, the week was a very favorable one for the harvesting of hay and grain. In most districts the second crop of alfalfa has been cut and stacked in excellent condition. Wheat, oats and barley have nearly all been cut, and threshing is in progress, with good yields reported from all sections of the State. Reports indicate that late wheat and oats are filling out well. Potatoes, corn, garden truck and pastures need rain badly. In the southeastern part of the State the grape crop has been damaged considerably by insects. Apples are ripening rapidly, and a fine crop will be harvested. Live stock of all kinds are doing well and are in good condition.

Week ending Monday, September 14, 1903—The temperature during the past week was generally below normal, especially during the latter part, when stormy and unsettled weather prevailed. There was a light fall of snow on some of the high mountain ranges on the 9th, 10th and 13th. Light rains fell on the 12th and 13th, but not enough to be of much benefit to growing vegetation. Light to heavy frosts in Elko and White Pine Counties on the 7th and 8th damaged minor crops in exposed localities. A severe and destructive frost occurred on the morning of the 14th, causing an immense amount of damage to corn, potatoes and garden vegetables in various parts of the State. Generally, the weather of the week has been favorable for harvesting operations, but it was much too cold for growth of late vegetation. The harvesting of hay and grain is practically over, except in a few of the late districts, where it is nearing completion. Threshing is well under way, and yields are reported as being satisfactory. Hay baling is progressing rapidly. Prospects for fruit continue favorable. The condition of stock is reported as being satisfactory, although range feed is rather poor in most localities. Irrigation water is very scarce throughout the State. Warmer weather, which may be expected, is needed for maturing late crops.

Week ending Monday, September 21, 1903—Clear weather and nearly normal temperature prevailed throughout the State during the past week. In the western part of the State there has been considerable smoke from forest fires in the mountains. Light to heavy frosts occurred on a few mornings the early part of the week, doing some damage to tender vegetation. Very light winds prevailed during the week. The weather conditions have been extremely favorable for maturing late crops and for general harvesting operations. In the eastern part of the State late wheat and oats and the second crop of alfalfa are being cut and stacked, with yields in excess of the usual average. In portions of White Pine County the fruit and vegetable crops will be short, owing to late frosts. Threshing returns

indicate that the grain is turning out well generally. Potatoes and garden truck are about as previously reported. Cattle are generally in good condition, and are being returned to the valleys where feed is more plentiful.

HUMAN NERVES AS WEATHER INDICATORS.

The Literary Digest, Vol. 27, No. 14.

Now that confidence has been lost in the moon or the special appearances of the clouds at night with regard to the moon, as indications of the weather we are to have, says *The Medical News*, there is need of something else on which to base predictions. It quotes a writer in the *New York Independent*, who, describing a summer's day in the country, says: "The best rain prophecy that I know is nerve irritability. If the boys are easily provoked (myself also), there is likely to be a shower." Commenting on this, *The Medical News* says:

"Here is a weather prophet with ideas worth considering. Some time it will come to be realized that many of the pains and aches that immediately precede and accompany damp weather are not due to rheumatism, nor to the rheumatic diathesis, but are just plain every-day irritability consequent upon some change in nervous conditions which are caused by a drop in the barometer perhaps, or perhaps the hydropic variation in tissues which follows a change in the atmospheric humidity. Old people become walking barometers in their power to portend storms, because the lessened elasticity of their arterial and vascular system prevents or at least hampers those changes in the peripheral circulation which would compensate for variations in barometric pressure. Whenever an injury has taken place around a joint, this same state of affairs proclaims itself even in comparatively young subjects. All signs, however, fail in a dry time, so that the human barometer, like most other weather prophets, proves unreliable when it is most needed. It is probable, however, that a careful study of human feelings would enable the would-be weather prophet to prognosticate weather conditions with more assurance than any empirical study of the moon and cloud conditions."

TO CHECK THE APPLE WORM.

E. A. Popcove, in Farmers' Review.

Spraying alone, though successful within its own limits, cannot insure the fullest product of perfect apples without the concurrent practice of other methods looking to the final reduction of the numbers of the codling moth. The most important of these associated methods is the banding of the trees and the destruction of the attracted worms every ten days from the fall of the first wormy apple till the fruit is all in the bin. The second is the immediate destruction of all fallen wormy fruit, and the third is the destruction of as many as possible of the worms wintering over under bark scales, in old birds' nests, in cracks in apple bins or barrels, or elsewhere in the fruit room.

AVERAGE HOURLY WIND MOVEMENT FOR SEPTEMBER, 1903.

75th Meridian Time.

Stations.	1 a.m.	2	3	4	5	6	7	8	9	10	11	12 noon	1 p.m.	2	3	4	5	6	7	8	9	10	11	12 midn't	For the month.
Carson City	4.9	4.1	4.0	3.2	4.1	4.0	4.0	3.6	2.6	2.6	2.5	2.8	4.0	5.1	7.0	7.9	8.5	9.0	10.1	10.6	9.7	8.1	6.1	5.8	5.6
Winnemucca	6.1	6.7	6.8	6.3	5.9	5.9	6.4	5.9	6.4	5.9	5.8	6.7	6.9	8.2	9.2	9.6	9.7	10.7	9.6	9.1	8.1	6.8	6.2	6.2	7.3
Modena (Utah)																									

PREVAILING HOURLY WIND DIRECTION FOR SEPTEMBER, 1903.

Carson City	NW	NW	NW	S	S	S	S	S,SW	S	S	SW	S,SW	SE	E,SE	SE	NE W	NE	W	W	W	W	W	NW	NW	W
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CLIMATOLOGICAL DATA FOR SEPTEMBER, 1903.

Stations	Counties	Elevation feet	Length of record years	Temperature (degrees Fahrenheit)							Precipitation (inches)				Sky				Observer	
				Mean.	Departure from the normal	Highest.	Date	Lowest	Date	Greatest daily range	Total	Departure from the normal	Greatest 24 hours	Total snow in month (inches)	Number rainy days	Number clear days	Number partly cloudy days	Number overcast days		Prevailing wind
Northern Section.																				
Battle Mountain-1	Lander	4,511	33	62.6	-0.2	101	2	25	11	61	0.00	-0.21	0.00	0	0	20	7	3	SW	Agent So. Pacific Co.
Beowawe-3	Eureka	4,695	33																Agent So. Pacific Co.	
Carlin-3	Elko	4,897	33																Agent So. Pacific Co.	
Crane's Ranch-1	Elko	5,350	16																W. T. Crane	
Elko-1	Elko	5,063	33	55.6	+0.6	92	3	28	16	60	0.15	-0.05	0.15	0	1	19	10	1	SW	C. H. Sproutle
Fenelon-3	Elko	6,128	16	56.5	-1.7	93	3	30	11		T	0.40	T	T	0	19	10	1	SW	Agent So. Pacific Co.
Golconda-3	Humboldt	4,392	25	61.1	+5.1	91	26	38	19		T	-0.29	T	0	0	27	2	1		Agent So. Pacific Co.
Halleck-3	Elko	5,229	31	58.1	+1.1	96	1	32	9		0.50	+0.38	0.50	0	1	21	1	5	SW	Agent So. Pacific Co.
Humboldt-1	Humboldt	4,236	32	59.7	-2.4	93	2	29	13	14	0.00	-0.16	0.00	0	0	22	6	2	S	Agent So. Pacific Co.
Lee	Elko		5								0.07	-0.21	0.07	0	1	19	9	2	SE	Miss Jennie Williams
Lovelock-1	Humboldt	3,977	12	62.2	-3.7	99	1	32	15	57				0	1	23	5	2	N	Agent So. Pacific Co.
Mill City-3	Humboldt	4,225	15	57.6	+5.0	82	22	45	1		0.00	-0.20	0.00	0	0	20	2	8	W	Agent So. Pacific Co.
Palisade-1	Eureka	4,821	22	66.0	+4.7	91	24	35	15	45	0.08	-0.26	0.08	0	1	27	0	3	E	Agent So. Pacific Co.
Quinn River Ranch-1	Humboldt	4,850	2																F. M. Payne	
Tecoma-1	Elko	4,812	26	56.0	-6.3	85	20	25	14	57	0.00	-0.30	0.00	0	0	22	0	8	SW	Agent So. Pacific Co.
Toano-3	Elko	5,975	34	61.0	+0.3	103	1	33	11		0.12	0.36	0.12	T	1	23	2	5	N	Agent So. Pacific Co.
Wells-3	Elko	5,623	32								0.05	-0.19	0.05	0	1	24	4	2	W	Agent So. Pacific Co.
Winnemucca-1	Humboldt	4,132	25	56.7	-3.4	91	2	25	14	48	0.06	-0.27	0.06	T	1	22	7	1	NE	U. S. Weather Bureau
Wood-1	Elko	6,000	4	56.4		93	1	26	16	51	0.47		0.42	0	2	20	6	4	W	A. H. Wiseman
Means				59.4	-0.3						0.11	-0.20		T	1	22	5	3	W	
Eastern Section.																				
Ely-1	White Pine	6,000	16	57.0	+2.4	88	2	26	12	44	1.10	+0.54	0.71	0	3	22	4	4	SW	Chas. S. Grunditz
Hamilton-1	White Pine	7,977	3																Mrs. J. F. Beck	
Monitor Mill-1	White Pine	6,400	5																Jas. B. Orr	
Means				57.0	+2.1						1.10	+0.54		0	3	22	4	4	SW	
Central Section.																				
Austin-1	Lander	6,594	15	57.8	-2.8	85	4	27	14	35	T	-0.37	T	0	0				H. W. Dyer	
Eureka-1	Eureka	6,990	1	59.8		91	1	25	15	49	T		T	T	0	20	9	1	S	D. M. Broy
Potts-1	Nye	6,826	11	54.4	-7.7	100	1	17	15	66	0.25	-0.17	0.25	0	1	10	4	16	N	Miss Bessie Potts
Means				57.3	-5.2						0.08	-0.27		T	0	15	6	9	S	
Western Section.																				
Carson City-2	Ormsby	4,680	24	58.3	-1.2	91	2	25	15	49	T	-0.28	T	0	0	27	2	1	SW	C. W. Friend
Carson City (W. B.)-1	Ormsby	4,720	14	59.1	-0.4	89	2	27	14	47	T	-0.28	T	0	0	24	4	2	W	U. S. Weather Bureau
Fallon-1	Churchill			59.9		94	3	29	14	48	0.00		0.00	0	0				Mrs. Ida Dolf	
Lewers' Ranch-1	Washoe	5,200	16	60.7	-0.5	89	2	28	14	46	0.10	-0.71	0.10	0	1	22	8	0		Mrs. Ross Lewers
Martin's Ranch-1	Douglas	4,830	5	62.1	+2.6	97	2	27	14	53	T	-0.28	T	0	0	23	6	1	SW	Mrs. J. H. Martin
Reno-1	Washoe	4,484	33	60.0	-1.0	93	2	30	14	43	T	-0.16	T	0	0	25	2	3	NW	State University
Wabuska-1	Lyon	4,347	1	58.3		94	3	22	15	50	0.00		0.00	0	0	27	0	3	SW	J. H. Harcourt
Wadsworth-1	Washoe	4,077	32			96	2	30	17		0.10	-0.08	0.10	0	1	30	0	0	W	Agent So. Pacific Co.
Means				59.8	-0.1						0.02	-0.30		0	0	25	3	2	SW	
Southern Section.																				
Belmont-1	Nye	8,132	12	56.6	-1.2	89	2	27	13	42	0.51	-0.13	0.46	0	2	22	3	5	SW	W. N. Granger
Candelaria-1	Esmeralda	5,783	14	64.1	-0.6	90	2	35	14	36	0.02	-0.39	0.02	0	1	20	5	5	N	A. G. Draper
Caliente-1	Lincoln																		E. W. Clark	
Hawthorne-1	Esmeralda	4,569	16	63.8	-2.0	97	4	26	15	48	0.00	-0.23	0.00	0	0	14	4	12	N	T. G. Watterson
McAfee's Ranch-1	Esmeralda	4,855		55.0		85	4	21	16	51	T		T	0	0	22	5	3	S	G. A. McAfee
Morey-1	Nye	7,384		60.3		93	1	27	13	46	1.60		1.35	T	4	20	9	1	S	Jas. B. Gilmore
Palmetto-1	Esmeralda	6,500	14	56.4	-1.7	88	3	23	15	45	T	-0.50	T	0	0	21	7	2	W	Wm. Oothout, Jr.
Rioville-1	Lincoln			80.0		114	1	48	17	48	0.79		0.46	0	4				Daniel Bonelli	
Silver Peak-1	Esmeralda	4,382	8	66.8		98	1	37	15	45	0.00		0.00	0	0	29	1	0	SE	Joseph Hand
Sodaville-1	Esmeralda	4,665	5	65.0		102	4	35	14	47	0.21		0.21	0	1	24	2	4	NW	Agent So. Pacific Co.
Means				63.1	-1.4						0.35	-0.31		T	2	21	5	4	S	
State Means				60.2	-0.8						0.18	-0.23		T	1	22	5	3	SW	State Means
Miscellaneous.																				
Modena (Utah)-1	Iron	5,470	2	59.2		89	4	30	12	45	1.48		0.56	0	7	21	5	4	W	U. S. Weather Bureau

REFERENCES: 1. Weather Bureau maximum and minimum thermometers in use; 2. self-registering maximum and minimum thermometers, not Weather Bureau, in use; 3. means and extremes of temperature from observations by ordinary thermometers at 7 a. m., 2 p. m., and 9 p. m. A small letter placed before the name of a station, or against the data in the body of the form, indicates the number of days missing from the record; for instance, "n" denotes 14 days missing. *Italic figures* indicate that the maximum or minimum occurred on several dates. T indicates trace of precipitation. All records are used in determining State (or district) means, but the mean departures from normal temperature and precipitation are based only on records from stations that have ten or more years of observation.

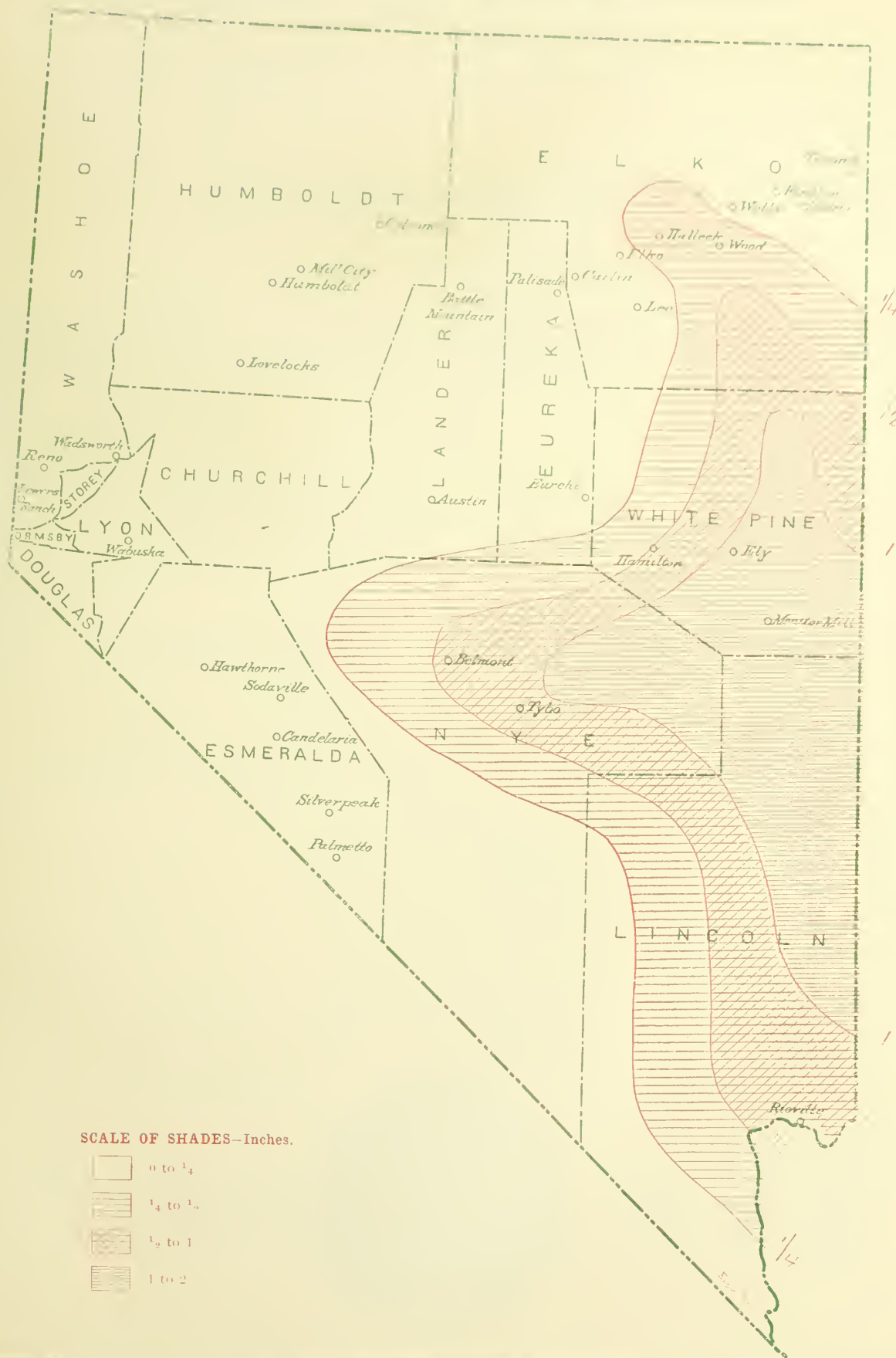
* Not considered in computing State or district means.

† Postoffice—Elko. ‡ Postoffice—Frankton. § Postoffice—Gardnerville. || Postoffice—Elko. ¶ Postoffice—Amos.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR SEPTEMBER, 1903.

Stations.		Day of Month.																													Monthly means.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		30	31	
Austin	Max.	83	84	84	85	81	62	65	66	73	70	62	51	55	61	68	69	70	73	75	75	75	75	75	75	75	73	74	72	69	70	68	71.0	
	Min.	55	57	57	58	55	40	40	40	38	44	35	35	35	35	37	35	41	45	46	46	45	46	45	45	46	45	45	46	50	51	47	44.7	
	Max.	102	104	102	100	90	75	82	80	78	92	84	73	60	70	73	83	90	92	93	96	96	93	93	95	96	96	95	98	96	95	93	88.8	
Battle Mountain	Max.	38	42	47	50	40	35	40	36	36	36	42	32	25	31	36	30	30	30	30	35	34	35	35	38	36	35	36	35	35	34	34	36.3	
	Min.	86	89	87	88	76	65	70	72	72	78	59	68	53	55	59	67	71	75	72	74	73	81	72	72	76	72	62	64	58	48	71.3		
	Max.	54	55	56																													41.9	
Culbute	Max.																																	
	Min.																																	
	Max.																																	
Candelaria	Max.	89	89	90	90	81	69	74	76	74	83	82	79	64	58	65	70	78	77	80	79	78	79	82	78	79	75	75	72	70	67	76.7		
	Min.	64	63	65	66	62	45	47	49	75	66	68	62	40	35	39	43	49	49	55	54	54	54	54	54	54	54	54	54	54	49	49	51.5	
	Max.	89	94	90	90	73	70	79	79	76	82	83	81	66	68	79	79	81	82	84	85	85	86	86	86	86	84	84	83	78	72	69	78.1	
Carson City	Max.	44	45	47	55	40	36	40	36	40	35	39	36	27	25	28	26	32	35	37	36	37	38	38	38	39	36	42	36	37	37	38.2		
	Min.	44	45	47	55	40	36	40	36	40	35	39	36	27	25	28	26	32	35	37	36	37	38	38	38	39	36	42	36	37	37	38.2		
	Max.	86	89	87	88	76	65	70	72	72	78	59	68	53	55	59	67	71	75	72	74	73	81	72	72	76	72	62	64	58	48	71.3		
Carson City (W. B.)	Max.	49	48	50	51	54	41	38	40	39	49	39	28	27	27	28	32	37	39	40	42	40	44	44	42	42	42	47	40	38	40	40	41.6	
	Min.	49	48	50	51	54	41	38	40	39	49	39	28	27	27	28	32	37	39	40	42	40	44	44	42	42	47	40	38	40	40	41.6		
	Max.	89	89	92	90	86	41	34	32	34	33	31	32	31	30	30	28	29	30	28	29	31	33	34	33	34	36	36	36	36	34	34	77.6	
Elko	Max.	87	88	88	88	58	58	72	74	69	77	68	58	54	57	71	74	76	74	79	79	81	78	77	78	77	73	73	69	66	56	38	74.5	
	Min.	50	50	53	53	58	57	32	33	33	33	26	27	27	27	34	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	39.5		
	Max.	87	88	88	88	58	58	72	74	69	77	68	58	54	57	71	74	76	74	79	79	81	78	77	78	77	73	73	69	66	56	38	74.5	
Ely	Max.	50	50	53	53	58	57	32	33	33	33	26	27	27	27	34	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	77.0	
	Min.	50	50	53	53	58	57	32	33	33	33	26	27	27	27	34	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	77.0		
	Max.	91	90	90	90	88	69	68	72	80	79	74	70	71	71	58	72	76	75	78	84	83	82	80	80	80	78	75	74	75	71	65	42.7	
Eureka	Max.	54	56	55	60	61	39	40	38	31	30	35	29	30	29	25	34	44	45	46	45	54	47	47	48	45	45	40	45	41	40	40	42.7	
	Min.	54	56	55	60	61	39	40	38	31	30	35	29	30	29	25	34	44	45	46	45	54	47	47	48	45	45	40	45	41	40	42.7		
	Max.	91	92	94	92	92	75	75	73	73	85	70	60	60	60	60	62	74	73	80	80	83	83	84	83	84	43	45	40	52	39	39	41.8	
Fallon	Max.	58	58	58	58	52	59	43	40	39	38	37	41	41	41	29	30	31	31	36	39	42	42	40	43	43	43	45	40	40	40	40	41.8	
	Min.	58	58	58	58	52	59	43	40	39	38	37	41	41	41	29	30	31	31	36	39	42	42	40	43	43	43	45	40	40	40	41.8		
	Max.	96	96	96	91	94	80	74	74	68	64	58	56	58	58	62	68	74	76	78	78	76	76	76	76	76	76	82	82	82	64	64	75.7	
Halleck*	Max.	46	48	46	52	50	46	46	46	35	38	40	48	42	46	40	32	34	34	36	36	36	36	36	36	36	36	36	36	36	36	36	39.6	
	Min.	46	48	46	52	50	46	46	46	35	38	40	48	42	46	40	32	34	34	36	36	36	36	36	36	36	36	36	36	36	36	39.6		
	Max.																																	
Hamilton	Max.																																	
	Min.																																	
	Max.																																	
Humboldt	Max.	91	93	90	88	70	68	65	60	73	80	59	57	58	67	74	75	79	82	82	82	82	83	83	83	83	84	77	79	76	75	70	75.1	
	Min.	49	60	57	55	50	46	40	42	43	46	45	40	40	38	35	35	36	35	35	35	35	35	35	35	35	35	35	35	35	35	44.3		
	Max.	93	93	94	97	84	74	77	74	76	76	88	70	66	66	78	82	80	82	84	86	84	84	84	84	84	84	84	84	84	84	84	84	80.1
Hawthorne	Max.	55	56	59	63	50	49	46	46	45	45	45	40	40	38	36	37	40	43	45	45	45	45	45	45	45	45	45	45	45	45	45	47.6	
	Min.	55	56	59	63	50	49	46	46	45	45	45	40	40	38	36	37	40	43	45	45	45	45	45	45	45	45	45	45	45	45	45	47.6	
	Max.	87	89	87	85	50	78	77	78	77	82	70	67	66	71	78	82	80	82	84	86	84	84	84	84	84	84	84	84	84	84	84	84	78.7
Lewers' Ranch	Max.	50	56	52	56	52	36	39	39	43	41	34	33	33	32	32	38	41	47	46	46	46	46	46	46	46	46	46	46	46	46	46	46	84.9
	Min.	50	56	52	56	52	36	39	39	43	41	34	33	33	32	32	38	41	47	46	46	46	46	46	46	46	46	46	46	46	46	46	84.9	
	Max.	97	96	96	94	92	80	91	87	89	80	79	81	81	84	82	90	91	87	86	84	83	83	83	83	83	83	83	83	83	83	83	83	84.9
Lovelock	Max.	40	45																															

TOTAL PRECIPITATION FOR SEPTEMBER, 1903.



DAILY PRECIPITATION FOR SEPTEMBER, 1903.

Stations.	Day of Month.																															Total.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Northern Section.</i>																																	
Battle Mountain																																	
Beowawe																																	0.00
Carlin		.05	.07									T																					0.00
Crane's Ranch																																	0.12
Elko																																	0.15
Fenelon				T																													T
Golconda				T																													T
Halleck			T																														0.50
Humboldt																																	0.00
Lee					T																						T						0.07
Lovelock																																	0.00
Mill City																																	0.00
Palisade																																	0.08
Quinn River Ranch																																	0.00
Tecoma																																	0.12
Toano														T																			0.05
Wells												.05																					0.17
Winnemucca													T																				T
Wood				T								.05																					0.17
<i>Eastern Section.</i>																																	
Ely																																	1.10
Hamilton																																	
Monitor Mill																																	
<i>Central Section.</i>																																	
Austin																																	T
Eureka																																	T
Portis																																	0.25
<i>Western Section.</i>																																	
Carson City (W. B.)																																	T
Fallon																																	0.00
Lewers' Ranch													.10																				0.10
Martin's Ranch													T																				T
Reno													T																				T
Wabuska																																	0.00
Wadsworth																																	0.10
<i>Southern Section.</i>																																	
Belmont																																	0.51
Candelaria																																	0.02
Caliente																																	0.00
Hawthorne																																	T
McAfee's Ranch																																	T
Morey		.05		.10																													1.60
Palmetto		T																															T
Rioville				T																													T
Silver Peak	.18																																0.79
Sodaville																																	0.00
<i>Miscellaneous.</i>																																	
Modena (Utah)	.14	.19	.10																														1.48

T indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA:



STATE PRINTING OFFICE, - ANDREW MAUTE, SUPT.

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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR OCTOBER, 1903.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

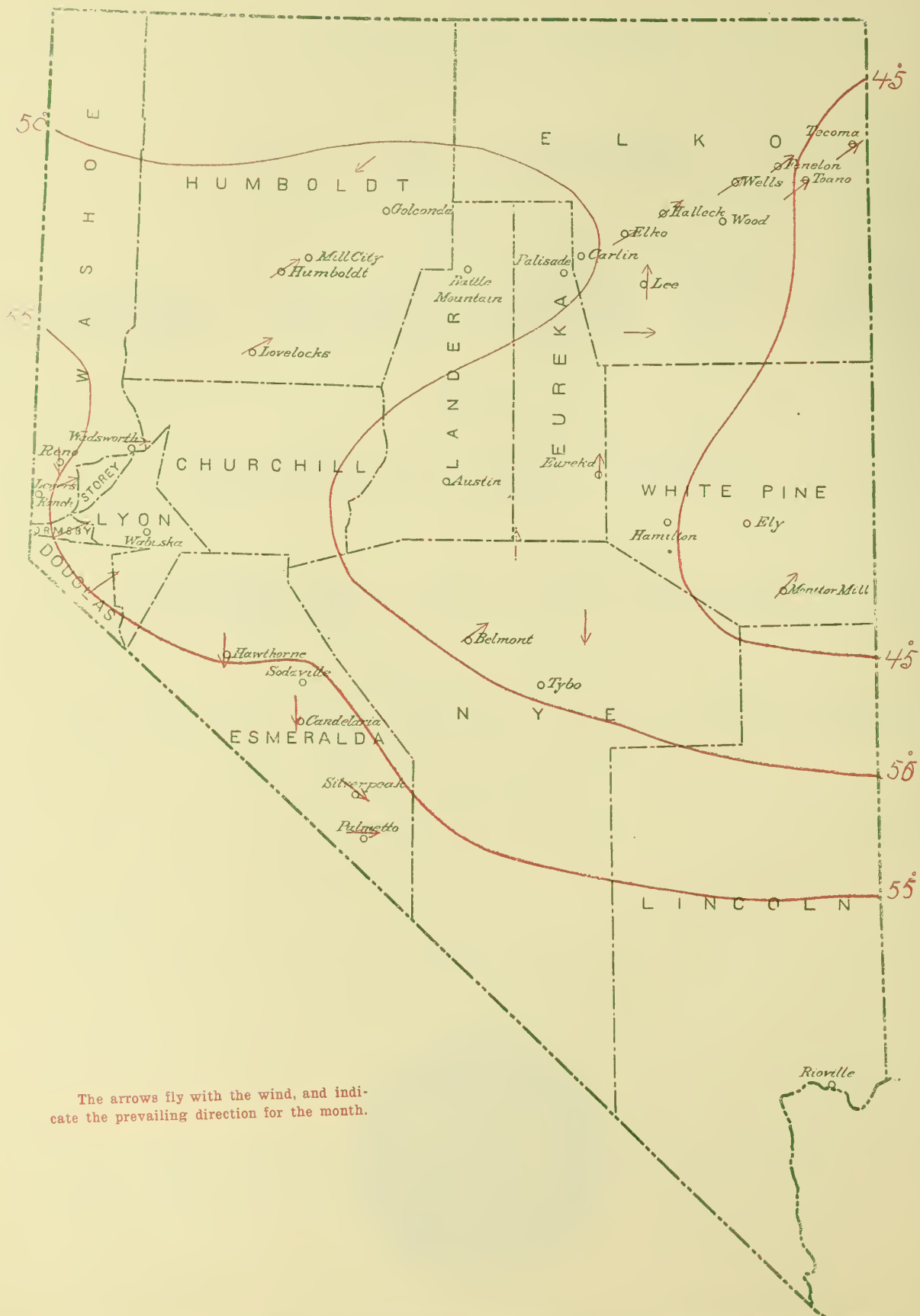
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR OCTOBER, 1903.



The arrows fly with the wind, and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director.

CARSON CITY, NEVADA.

VOL. XVII.

CARSON CITY, NEVADA.

No. 10.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau stations at Carson City and Winnemucca, Nevada, and Modena, Utah, was 30.10 inches.

The highest pressure, 30.38 inches, was recorded at Winnemucca, on the 12th, and the lowest, 29.71 inches, at Carson City and Winnemucca, on the 9th.

The absolute range of pressure for the State was 0.67 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, determined from the reports of thirty-one stations, was 51.0, or about 3 above normal, and 1 higher than the mean for the corresponding month in 1902.

By sections, the means were as follows: Northern, 50.3; eastern, 46.5; central, 49.2; western, 54.4; southern, 54.4.

The highest monthly mean, 61.6, was recorded at Palisade, Enreka County.

The lowest monthly mean, 40.8, was recorded at Wells, Elko County.

The highest temperature, 90, was recorded at Wabaska, Lyon County, on the 24th.

The lowest temperature, 11, was recorded at Potts, Nye County, on the 29th.

The absolute range of temperature was 79.

The greatest local daily range of temperature, 62, was recorded at Battle Mountain, Lander County, on the 22d.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 0.29 of an inch, which is 0.22 of an inch below normal, and .02 of an inch in excess of the average for the corresponding month in 1902.

By sections, the averages were as follows: Northern, 0.23 of an inch; eastern, 0.55 of an inch; central, 0.03 of an inch; western, 0.22 of an inch; southern, 0.42 of an inch.

The greatest monthly amount, 1.60 inches, was recorded at Morey, Nye County, and the least, none, at several stations.

Relative Humidity.

Carson City—8 a. m., 67 per cent; 8 p. m., 34 per cent; monthly mean, 51 per cent.

Winnemucca—8 a. m., 61 per cent; 8 p. m., 30 per cent; monthly mean, 46 per cent.

Modena (Utah)—8 a. m., 62 per cent; 8 p. m., 25 per cent; monthly mean, 43 per cent.

Wind and Weather.

The prevailing wind direction was from the southwest.

The total movement of the wind at Carson City was 3,757 miles; at Winnemucca, 6,090 miles, and at Modena (Utah), 6,357 miles.

The maximum velocity at Carson City was 36 miles per hour, from the south, on the 9th; at Winnemucca 56 miles per hour, from the west, on the 9th, and 42 miles per hour, from the southwest, at Modena (Utah), on the 9th.

The average number of clear days was 23; partly cloudy, 1; cloudy, 4; days with .01 of an inch or more of precipitation, 1.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR OCTOBER DURING THE PAST FIFTEEN YEARS.

Year	Mean.	Temperature Highest	Lowest	Average Precipitation (inches for 100 yrs.)
1889	52.2	103	-14	1.48
1890	50.5	92	8	0.26
1891	51.2	88	0	0.04
1892	47.5	91	2	0.32
1893	48.7	94	8	0.12
1894	51.7	91	5	0.33
1895	49.9	100	-5	0.26
1896	50.3	91	11	0.24
1897	47.1	95	9	1.71
1898	45.9	86	7	0.23
1899	45.5	89	4	0.71
1900	47.7	82	4	0.80
1901	50.7	90	17	1.11
1902	50.0	97	17	0.27
1903	51.0	90	11	0.29

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Sleet—Potts, 1st.

Thunderstorms—Candelaria, 1st; Morey, 1st; Palmetto, 1st; Silver Peak, 1st.

Hail—Crane's Ranch, 1st; Palmetto, 1st; Silver Peak, 1st.

Lunar Halos—Carson City, 30th; Candelaria, 4th; Winnemucca, 9th.

High Winds—Belmont, 9th; Candelaria, 8th, 9th, 10th; Elko, 9th; Hawthorne, 9th; Martin's Ranch, 9th, 10th; Reno, 9th; Morey, 9th; Palmetto, 9th; Potts, 7th, 8th, 9th, 21st; Carson City, 9th; Silver Peak, 9th, 31st; Winnemucca, 9th; Modena (Utah), 9th.

REVIEW OF WEATHER AND CROP CONDITIONS, SEASON OF 1903.

JANUARY—The weather during the month was moderately mild and quite favorable to stock interests. There were no severe storms or marked extremes of temperature. Heavy snows at the close of the month made prospects exceedingly bright for a good flow of water during the summer months.

FEBRUARY—The month was generally clear and unusually cold, with a marked deficiency in precipitation. The temperature for the State averaged about 12 degrees below normal, while the precipitation was nearly half an inch less than the average for February. The weather during the month was very severe on live stock, especially cattle and sheep, many of which perished from the effects of the cold and starvation. The outlook for water during the growing season was very promising at the close of the month.

MARCH—The temperature and precipitation during the month were both above normal. The weather was generally favorable for plowing and seeding over the southern, central and western sections of the State. Warm rains toward the close of the month were of great benefit to alfalfa, pastures and meadows. At the close of the month vegetation was well advanced in the southeastern portion, especially fall-

was exceptionally favorable for haying, which was pretty well under way all over the State.

APRIL.—The first half of the month was rather cold, and generally unfavorable for growth of vegetation. Plowing and seeding, however, progressed rapidly in the more favored districts of the central, western and southern sections during the month. The last half of the month was much warmer and vegetation of all kinds made excellent growth. Stock was in fairly good condition throughout the month, but not improving very much on account of the backwardness of the range feed. Early fruit trees were blooming in the southern portion at the beginning of the month, and in the northern portion at the close. The damage from frost was slight and unimportant.

MAY—Good growing weather prevailed during the first half of the month; the last half was unseasonably cold, with frequent frosts, which did considerable damage to fruit trees and early garden vegetables in many localities. High winds on the 17th did considerable damage to fruit trees and crops in the southern portion of Lincoln County. Grasshoppers appeared in Humboldt County about the middle of the month and caused some damage to the grain crops and garden vegetables. Haying was in progress in Lincoln County early in the month, and the yield was heavy in the majority of districts. Seeding and planting were about completed in most districts about the middle of the month, except in the eastern and northeastern sections, where the work was in active progress. Range feed improved rapidly and live stock did fairly well.

JUNE—Nearly normal weather conditions prevailed throughout the month. It was, however, much drier than usual over the greater part of the State. On the whole, the month was a very favorable one for growing crops. Irrigation water was plentiful in all districts for crop needs. Range feed was fairly good, and live stock improved rapidly in condition. Grain harvest began in the southeastern portion during the second week, and haying was somewhat general at the close of the month, with heavy yields in nearly all districts. The fruit and vegetable crops made rapid growth, and were in excellent condition at the end of the month. The alfalfa and grain crops never looked better at this season of the year. Threshing began in Lincoln County the last week, with rather light yields in a few localities.

JULY—The month was remarkably dry and much cooler than the average July. Heavy frost occurred on the mornings of the 7th and 8th, causing a great deal of damage to beans, corn, potatoes and other tender vegetation in various parts of the State. High winds interfered with haying to some extent. Range feed dried up rapidly from lack of moisture. The water supply diminished rapidly after the 15th, and at the close of the month it was somewhat short in many localities. Apricots, early apples and raspberries ripened about the middle of the month. Irrigated crops made fine growth, and the weather throughout the month

AUGUST—Drought prevailed during the entire month, and late crops suffered from lack of moisture. At the close of the month range feed was very poor in some localities, and hardly sufficient to keep stock in fair condition. Harvesting hay and grain with satisfactory results. The yield of alfalfa was extra heavy over most of the State. Threshing and hay baling in progress at the close of the month. The heat and drought affected potatoes and vegetables unfavorably. Wheat, barley and oats ripened rapidly—in a few places prematurely—on account of drought, high temperature and lack of moisture.

SEPTEMBER—The temperature for the State averaged about normal, while the precipitation was unusually light and nearly a quarter of an inch less than the September average. There was a light fall of snow on the high mountains during storms on the 9th, 10th and 13th, followed by a severe and destructive frost on the morning of the 14th, which caused serious damage to corn, potatoes and garden truck in many localities. The harvesting of hay and grain was practically completed by the middle of the month, except in a few of the late districts in the eastern and northeastern sections, where the work continued the remainder of the month. The weather throughout the month was all that could be desired for harvesting, threshing, hay baling, and the maturing of apples and other late fruits.

OCTOBER—The weather throughout the month was moderately warm, generally clear and remarkably dry. These conditions were highly favorable for gathering late crops, baling hay and threshing grain.

The growing season was a very much shorter one than usual, covering a period of about one hundred and fifty days.

The results accomplished have been eminently satisfactory to the farmers of Nevada. Over the greater part of the State fine crops of hay, grain, fruits and vegetables were raised and harvested in excellent condition. The potato crop was somewhat of a failure on account of a shortage of water during the latter part of the season. The apple crop was heavy and of superior quality.

DELAYED REPORT.

McAFEE'S RANCH (Dyer P. O.)—Mean temperature, 49.0; highest, 82, on the 6th; lowest, 19, on the 28th; total precipitation, 0.81 of an inch; number of rainy days, 3; clear, 23; partly cloudy, 4; cloudy, 4.

ERRATA.

September (1903) Report, page 6—Morey—Mean maximum temperature, 78.5, should read 78.8; mean minimum temperature, 60.3, should read 60.4. Page 3, sixth line under temperature, eastern section, mean temperature, 5.0, should read 57.0.

AVERAGE HOURLY WIND MOVEMENT FOR OCTOBER, 1903.
75th Meridian Time.

[illegible]

PREVAILING HOURLY WIND DIRECTION FOR OCTOBER, 1903.

Carson City	NW	S	S	S	S	S	S	S	S	S, W	SW	SW	SW	SE	SE	E	E	NE E	NE	E	NE	NW	NW	NW	NW	S
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CLIMATOLOGICAL DATA FOR OCTOBER, 1903.

Stations	Counties	Elevation feet	Length of record years	Temperature (degrees Fahrenheit)						Precipitation (inches)					Sky					Observations
				Mean.	Departure from the normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from the normal	Greatest in 24 hours	Total snowfall in inches	Number rainy days	Number clear days	Number cloudy days	Number overcast days	Prevailing wind of week	
Northern Section.																				
Battle Mountain-1	Lander	4,511	33	53.0	+3.6	87	18	20	26	62	0.60	+0.10	0.60	0	1	19	5	7		Agent So. Pacific Co.
Beowawe-3	Eureka	4,695	33																	Agent So. Pacific Co.
Carlin-3	Elko	4,847	33								0.00	-0.42	0.00	0	0	25	6	0	sw	Agent So. Pacific Co.
Crane's Ranch†	Elko	5,350	16								0.68	+0.08	0.68	0	1	23	2	6	w	W. T. Crane
Elko-1	Elko	5,063	33	48.1	+5.8	79	3	13	31	56	0.05	-0.41	0.05	0	1	19	10	2	sw	C. H. Sprinkle
Feuchon-3	Elko	6,128	16																	Agent So. Pacific Co.
Golconda-3	Humboldt	4,392	25	51.0	+1.1	83	23	23	30		0.50	+0.10	0.50	0	1	24	2	5		Agent So. Pacific Co.
Halleck-3	Elko	5,229	31	54.2		82	17	22	29		T	-0.56	T	0	0	22	3	6		Agent So. Pacific Co.
Humboldt-1	Humboldt	1,236	32	52.4	+2.6	77	12	25	30	41	0.50	+0.11	0.50	0	1	25	1	5	s, sw	Agent So. Pacific Co.
Lee	Elko		5								0.03	-0.98	0.03	0	4	20	3	8	s	Miss Jennie Williams
Lovelock-1	Humboldt	3,977	12	52.8	-0.7	80	4	29	14	47	0.00	-0.16	0.00	0	0	16	11	4	sw	Agent So. Pacific Co.
Mill City-3	Humboldt	1,225	15	46.1	-5.6	68	12	35	27		0.00	-0.18	0.03	0	0	28		3	w	Agent So. Pacific Co.
Palisade-1	Eureka	1,821	22	61.6		87	22	32	19	48	0.00	-0.58	0.00	0	0	27	0	4	e	Agent So. Pacific Co.
Quinn River Ranch* -1	Humboldt	1,850	2																	F. M. Payne
Tecoma-1	Elko	4,812	26	47.4	+0.8	75	9	12	30	41	0.00	-0.40	0.00	0	0	21	0	10	sw	Agent So. Pacific Co.
Toano-3	Elko	5,975	34	45.8	-0.5	65	27	25	31		0.31	-0.11	0.11	0	3	20	9	2		Agent So. Pacific Co.
Wells-3	Elko	5,623	32	40.8	-5.2	56	4	25	23		0.30	-0.34	0.20	0	2	17		11		Agent So. Pacific Co.
Winnemucca-1	Humboldt	1,432	25	51.1	+2.9	82	18	23	30	54	0.47	+0.04	0.40	0	4	20	4	7	NE	U. S. Weather Bureau
Wood-1	Elko	6,000	4	49.8		81	17	15	30	53	0.28		0.24	0	2	22	4	5		A. H. Wiseman
Means				50.3	+4.1						0.23	-0.25		0	1	22	4	5	sw	
Eastern Section.																				
Ely-1	White Pine	6,000	16	46.5	+2.7	73	18	19	30	43	0.55	-0.14	0.15	0	2	28		3	sw	Chas. S. Grunditz
Hamilton-1	White Pine	7,977	3																	Mrs. J. F. Beck
Monitor Mill -1	White Pine	6,400	5																	Jas. B. Orr
Means				46.5	+2.7						0.55	-0.14			2	28		3	sw	
Central Section.																				
Austin-1	Lander	6,594	15	51.2	+2.6	74	17	30	2	34	0.00	-0.46	0.00	0	0					H. W. Dyer
Eureka-1	Eureka	6,990	1	50.8		76	19	20	29	40	T		T	T	0	21	7	3	s	D. M. Broy
Potts-1	Nye	6,826	11	45.6	-1.3	72	17	11	29	51	0.10	+0.01	0.10	0	1	18	4	9	s	Miss Bessie Potts
Means				49.2	+0.7						0.03	-0.22		T	1	20	5	6	s	
Western Section.																				
Carson City-2	Ormsby	4,660	24	52.0	+2.4	81	8	22	30	55	0.05	-0.35	0.03	0	2	26	4	1	NE	C. W. Friend
Carson City (W. B.)-1	Ormsby	4,720	14	52.4	+2.8	80	19	23	30	50	0.03	-0.40	0.02	0	2	16	11	4	sw	U. S. Weather Bureau
Fallon-1	Churchill			52.0		80	8	29	27	45	0.56		0.56	0	1					Mrs. Ida Dolf
Lewers' Ranch‡-1	Washoe	5,200	16	51.9	+3.1	82	17	27	2	44	0.48	-0.70	0.32	0	4	18	11	2	sw	Mrs. Ross Lewers
Martin's Ranch‡-1	Douglas	4,830	5	57.6	+8.0	89	27	21	30	61	T	-0.40	T	0	0	24	4	3	sw	Mrs. J. H. Martin
Reno-1	Washoe	4,484	33	53.9	+3.9	81	17	27	30	44	0.15	+0.04	0.08	0	2	20	9	2	N	State University
Wabuska-1	Lyon	4,347	1	57.9		90	24	20	11		0.25		0.25	0	1	24	3	4		J. H. Harcourt
Wadsworth-1	Washoe	4,077	32	45.9	-5.5	78	2	28	27		0.00	-0.29	0.00	0	0				w	Agent So. Pacific Co.
Means				54.4	+5.0						0.22	-0.35		0	2	21	7	3	sw	
Southern Section.																				
Belmont-1	Nye	8,132	12	49.4		71	15	25	29	32	0.04		0.04	0	1	21	8	2	sw	W. N. Granger
Candelaria-1	Esmeralda	5,783	14	56.8	+3.2	74	9	34	30	32	0.11	-0.42	0.11	0	1	26	4	1	N, S	A. G. Draper
Caliente-1	Lincoln																			E. W. Clark
Hawthorne-1	Esmeralda	4,539	16	54.4	+0.2	82	8	29	30	43	0.20	-0.11	0.20	0	1	19	4	8	N	T. G. Watterson
McAfee's Ranch-1	Esmeralda	4,835																		G. A. McAfee
Morey-1	Nye	7,384		53.1		79	16	26	2	40	1.60		1.60	0	1	22	8	1	N	Jas. B. Gilmore
Palmetto-1	Esmeralda	6,500	14	52.8	+4.8	77	6	20	30	48	0.58	+0.08	0.58	0	1	27	3	1	w	Wm. Oothout, Jr.
Rioville-1	Lincoln																			Daniel Bonelli
Silver Peak-1	Esmeralda	4,382	8	58.0		85	14	31	27	47	0.34		0.34	0	1	28	2	1	SE	Joseph Hand
Sodaville-1	Esmeralda	4,665	5	56.2		84	19	30	26	52	0.08		0.08	0	1	21	9	1	NW	Agent So. Pacific Co.
Means				54.4	+2.7						0.42	-0.15		0	1	23	5	3	N	
State Means					51.0	+3.0					0.29	-0.22		0	1	23	4	4	sw	
Miscellaneous.																				
Modena (Utah)-1	Iron	5,470	2	50.0		74	18	17	31	42	1.39		1.03	0	3	27	2	2	sw	U. S. Weather Bureau
Bridgeport (Cal.)	Mono	6,423									0.00		0.00	0	0	25	5	1		George A. Montrose

REFERENCES: 1, Weather Bureau maximum and minimum thermometers in use; 2, self-registering maximum and minimum thermometers, not Weather Bureau, in use; 3, means and extremes of temperature from observations by ordinary thermometers at 7 a. m., 2 p. m., and 9 p. m. A small letter placed before the name of a station, or against the data in the body of the form, indicates the number of days missing from the record; for instance, "n" denotes 14 days missing. *Italic figures* indicate that the maximum or minimum occurred on several dates. T indicates trace of precipitation. All records are used in determining State (or district) means, but the mean departures from normal temperature and precipitation are based only on records from stations that have ten or more years of observation.

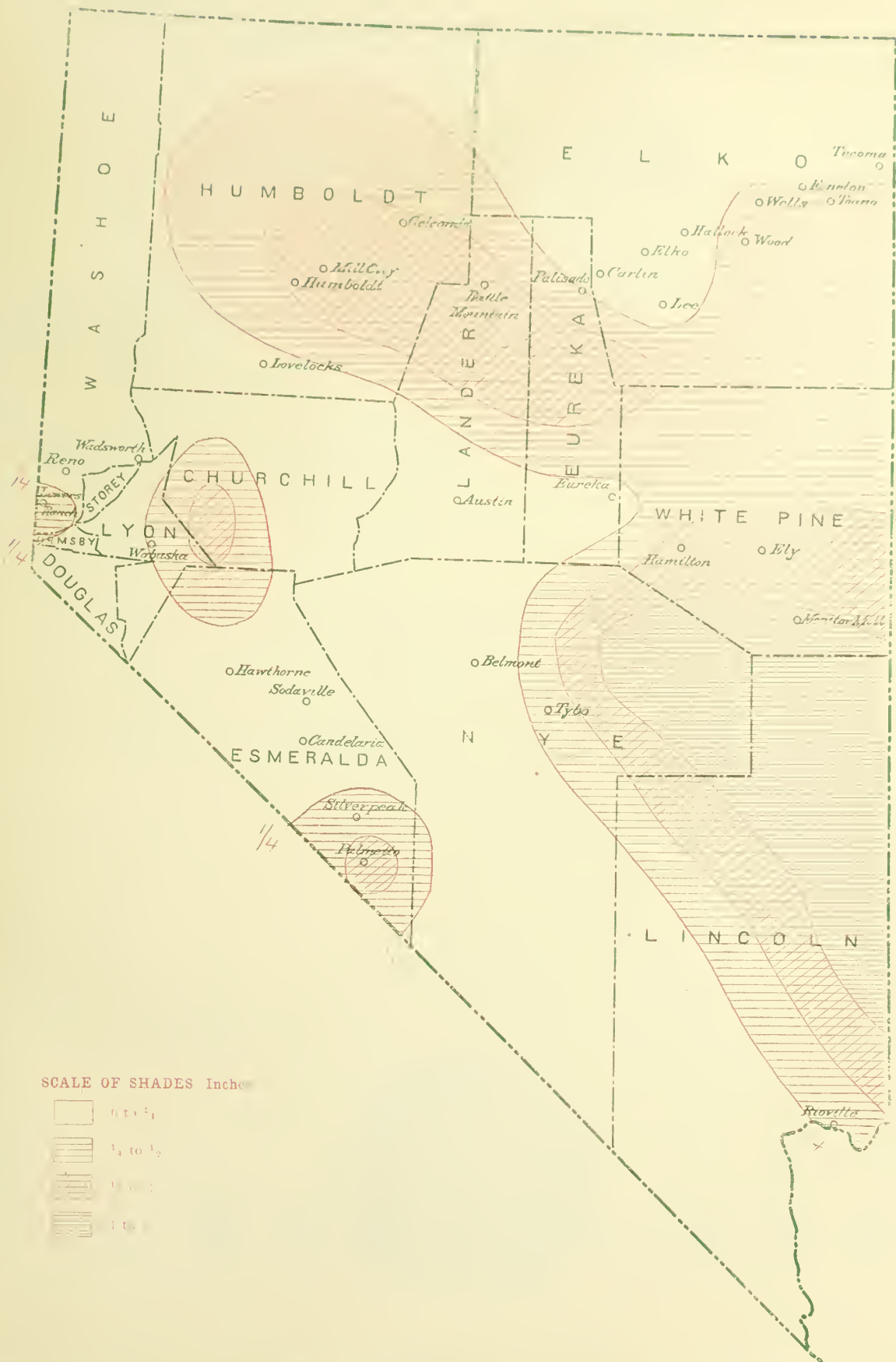
* Not considered in computing State or district means.

† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. || Postoffice—Elko. ¶ Postoffice—Amos.

Stations.	Day of Month												Monthly means.																						
	1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Anstsin	Max.	59	56	58	59	60	61	65	67	68	61	65	68	66	63	72	74	73	71	66	69	68	65	65	63	64	63	59	54	56	51	57	63.1		
	Min.	35	30	34	38	42	45	47	41	37	38	40	38	40	41	30	35	43	43	42	47	42	40	44	41	41	40	41	34	35	34	37	39.2		
	Max.	62	62	65	65	66	65	65	65	69	68	61	60	62	76	80	85	81	87	86	82	83	86	85	81	86	80	80	80	80	80	80	73.6		
	Min.	40	38	46	42	45	53	45	42	25	28	32	35	30	36	25	25	28	28	28	28	23	24	25	28	20	20	22	35	30	20	20	32.5		
	Max.	51	50	49	59	60	67	67	68	58	57	57	57	57	67	70	69	68	63	65	65	64	64	63	67	62	62	60	54	53	56	56	62.0		
Belmont	Max.	36	29	34	39	41	35	41	42	41	34	32		41	39	38				43	42	39	41	38	37	36	31	34	25	31	30	36.7			
Caliente	Min.																																		
	Max.	63	55	60	65	70	73	70	74	69	62	65	74	74	74	73	74	72	74	72	69	69	69	69	69	67	68	71	69	64	66	60	68.7		
	Min.	43	36	38	41	46	48	44	44	54	41	40	47	50	47	47	49	48	50	48	48	48	47	47	50	45	44	45	48	44	42	41	42	45.0	
	Max.	59	59	59	62	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	72.0	
	Min.	41	29	29	50	45	53	35	42	48	40	29	27	28	32	31	27	28	27	26	26	26	26	24	24	27	28	26	26	34	30	22	32	31.9	
Carson City (W. B.)	Max.	55	58	64	64	63	74	68	78	69	57	62	66	75	71	74	77	79	80	76	74	72	71	74	73	73	73	73	73	68	61	59	66	69.5	
	Min.	40	30	30	50	48	57	42	43	50	44	29	30	31	34	35	32	33	30	28	30	28	30	32	30	32	31	30	30	35	33	23	63	35.5	
	Max.	74	70	79	70	68	67	64	72	63	67	64	72	72	71	69	72	70	74	72	70	68	70	70	70	70	70	70	69	67	68	67	63	70	70
	Min.	32	29	30	34	35	33	28	31	37	37	31	29	28	28	29	28	28	27	20	21	21	19	24	23	21	18	18	32	30	11	13	26.6		
	Max.	40	35	50	30	32	38	31	36	41	41	33	30	30	68	63	69	73	71	61	65	66	66	66	68	68	66	64	66	61	60	56	63.4		
Ely	Max.	60	62	60	62	63	65	66	65	64	65	65																							

*Extremes of temperature from readings of ordinary thermometer at 7 a. m., 2 p. m., and 9 p. m.

TOTAL PRECIPITATION FOR OCTOBER, 1903.



DAILY PRECIPITATION FOR OCTOBER, 1903.

Stations.	Day of Month.																															Total	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Northern Section.																																	
Battle Mountain	.60																																0.60
Beowawe																																	0.00
Carlin																																	0.68
Crane's Ranch	.68																																0.68
Elko	T	T							.05																								0.05
Fenelon																																	0.50
Goldconda	.50																																T
Halleck	T	T																															0.50
Humboldt	.50																																0.50
Lee	.03	T																															0.03
Lovelock																																	0.00
Mill City																																	0.00
Palsade																																	0.00
Quinn River Ranch																																	0.00
Tecoma																																	0.00
Toano	.10										.14																						0.34
Wells	.10			.20																													0.30
Winnemucca	.40	T	T	.01	.05	T				.01	T																						0.47
Wood					.04					.24																							0.28
Eastern Section.																																	
Ely	.45	.10																															0.55
Hamilton																																	
Monitor Mill																																	
Central Section.																																	
Austin																																	0.00
Eureka	T	T																															T
Potts	.10																																0.10
Western Section.																																	
Carson City	.02									T	.03																						0.05
Carson City (W. B.)	.02								T	.01																							0.03
Fallon	.56																																0.56
Lewers' Ranch	T			.01					.12	.32	.03																						0.48
Martin's Ranch								T	T	T																							T
Reno	.08																																0.15
Wabuska	.25								T	.07																							0.25
Wadsworth																																	0.00
Southern Section.																																	
Belmont	.04																																0.04
Candelaria	.11																																0.11
Caliente																																	
Hawthorne	.20																																0.20
McAfee's Ranch																																	
Morey	1.60																																1.60
Palmetto	.58																																0.58
Rioville																																	
Silver Peak	.34																																0.34
Sodaville	.08																																0.08
Miscellaneous.																																	
Modena (Utah)	1.03	.34	.02																														1.39

T indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA:

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1903

551.00
LINNE
U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR NOVEMBER, 1903.

NEVADA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN COÖPERATION WITH THE

NEVADA STATE WEATHER SERVICE

(CHARLES W. FRIEND, Director.)

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

UNDER DIRECTION OF

WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU,

BY

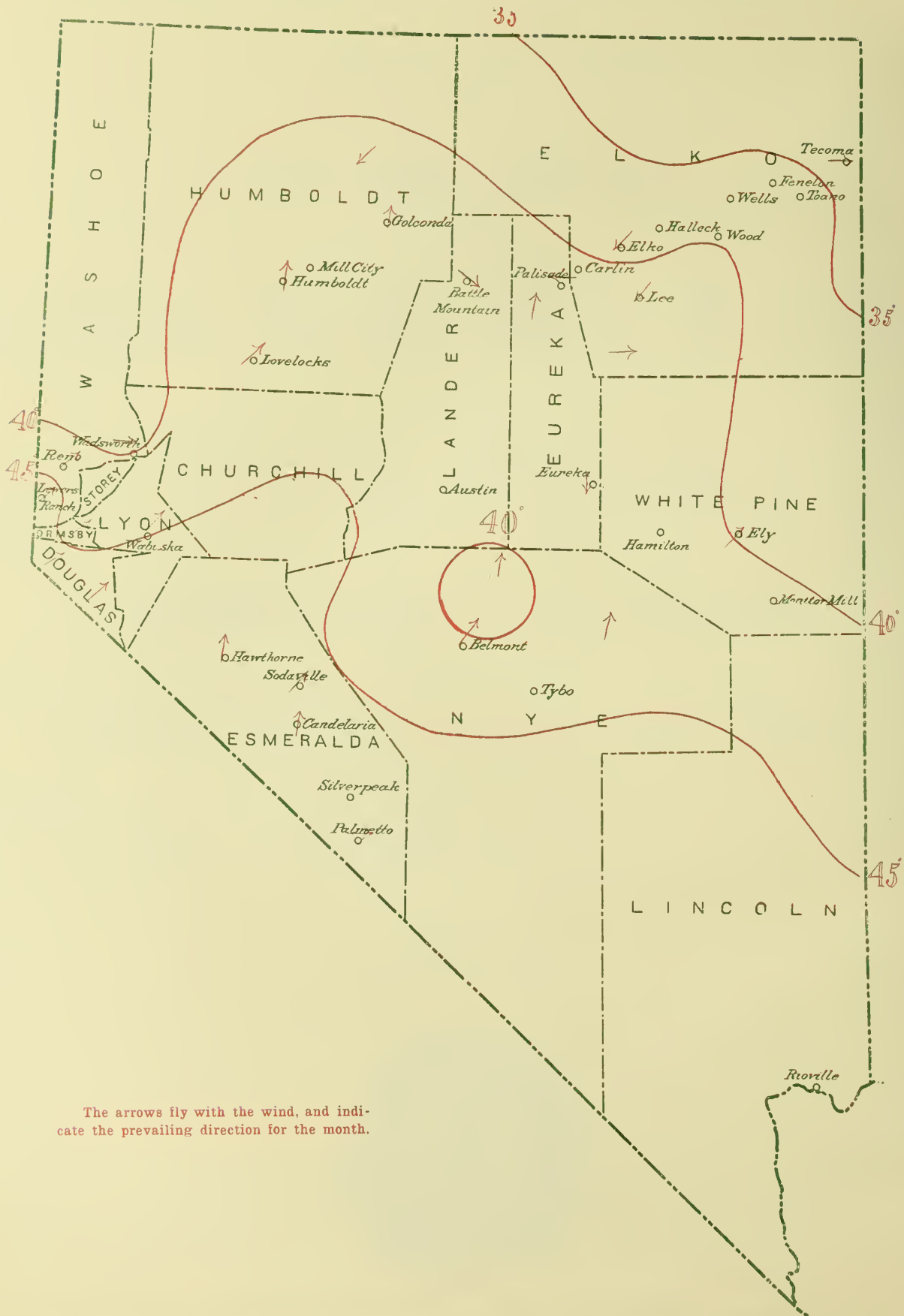
J. H. SMITH,

SECTION DIRECTOR,

CARSON CITY, NEVADA.



MEAN MONTHLY ISOTHERMS AND PREVAILING WIND DIRECTIONS FOR NOVEMBER, 1903.



The arrows fly with the wind, and indicate the prevailing direction for the month.

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

NEVADA SECTION.

J. H. SMITH, Section Director,

CARSON CITY, NEVADA.

VOL. XVII

CARSON CITY, NEVADA

No. 11.

CLIMATOLOGY OF THE MONTH.

Atmospheric Pressure—Inches and Hundredths.

The mean atmospheric pressure for the State, reduced to sea level, as determined from the records of the United States Weather Bureau Stations at Carson City and Winnemucca, Nevada, Modena, Utah, and Independence, California, was 30.08 inches.

The highest pressure, 30.40 inches, was recorded at Modena, Utah, on the 27th, and the lowest, 29.57 inches, at Winnemucca, on the 14th. The absolute range of pressure for the State was 0.85 of an inch.

Temperature—Degrees Fahrenheit.

The mean temperature for the State, determined from the reports of thirty stations, was 41.8, or about 3.3 above normal, and 4.6 higher than the mean for the corresponding month in 1902.

By sections, the means were as follows: Northern, 40.3; eastern, 39.8; central, 41.9; western, 43.6; southern, 43.2.

The highest monthly mean, 50.3, was recorded at Martin's Ranch, Douglas County.

The lowest monthly mean, 32.0, was recorded at Tecoma, Elko County.

The highest temperature, 89, was recorded at Palisade, Eureka County, on the 3d.

The lowest temperature, 4 above zero, was recorded at Tecoma, Elko County, on the 8th.

The absolute range of temperature for the State was 85.

The greatest local daily range of temperature, 58, was recorded at Battle Mountain, Lander County, on the 2d.

Precipitation—Inches and Hundredths.

The average precipitation for the State, determined from the reports of all stations, was 0.67 of an inch, which is 0.4 of an inch below normal, and 0.58 of an inch less than the average for the corresponding month of 1902.

By sections, the averages were as follows: Northern, 1.21 inches; eastern, 0.36 of an inch; central, 0.4 of an inch; western, 1.76 inches; southern, a trace.

The greatest monthly amount, 7.26 inches, was recorded at Lewers' Ranch, Washoe County, and the least, none, at several stations.

The greatest amount recorded in any twenty-four consecutive hours, was 2.44 inches, at Wood, Elko County, on the 12th.

Relative Humidity.

Carson City—8 a. m., 75 per cent; 8 p. m., 56 per cent; monthly mean, 66 per cent.

Winnemucca—8 a. m., 76 per cent; 8 p. m., 59 per cent; monthly mean, 67 per cent.

Modena (Utah)—8 a. m., 63 per cent; 8 p. m., 38 per cent; monthly mean, 51 per cent.

Wind and Weather.

The prevailing direction of the wind was from the south.

The total movement of the wind at Carson City was 7,012 miles; Winnemucca, 7,578 miles; Modena (Utah), 6,943 miles; Independence (California), 4,440 miles.

The maximum velocity at Carson City was 64 miles per hour, from the west, on the 11th; Winnemucca, 60 miles per hour, from the southwest, on the 11th; Modena (Utah), 42 miles per hour, from the southwest, on the 11th, and 39 miles per hour, at Independence (California), from the west, on the 14th.

The average number of clear days was 15; partly cloudy, 8; cloudy, 7; days with .01 of an inch or more of precipitation, 2.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA FOR NOVEMBER DURING THE PAST FIFTEEN YEARS.

Year.	Mean.	Temperature Highest.	Lowest.	Average Precipitation. Inches and Hundredths.
1889	39.6	81	4	1.08
1890	40.9	86	5	0.18
1891	41.3	81	—2	0.09
1892	38.7	76	—13	2.08
1893	38.2	74	—8	0.83
1894	43.7	83	—12	0.08
1895	35.9	80	—10	0.67
1896	35.6	79	—23	1.10
1897	40.3	77	—6	0.69
1898	35.1	77	—10	1.10
1899	40.8	73	3	0.50
1900	40.7	78	1	1.34
1901	43.1	80	12	0.53
1902	37.2	82	—3	1.25
1903	41.8	89	4	0.67

MISCELLANEOUS PHENOMENA.

(Stations and Dates of Occurrence.)

Thunder—Palisade, 12th.

Lightning—Reno, 23d; Carson City, 23d.

Lunar Halos—Carson City, 27th; Reno, 27th; Tecoma, 11th; Palmetto, 14th; Mill City, 14th; Behmont, 11th, 12th; Wood, 11th, 12th; Potts, 4th, 11th, 15th; Candelaria, 12th, 14th, 15th; Wadsworth, 10th, 11th, 12th, 13th, 14th; Reno, 11th, 12th, 13th, 14th, 15th, 19th; Carson City, 11th, 12th, 13th, 14th, 15th; Lewers' Ranch, 11th, 12th, 13th, 14th, 15th; Martin's Ranch, 11th, 12th, 13th, 14th, 15th; Winnemucca, 11th; Modena (Utah), 11th; Independence (California), 14th.

Green grass has sprung up on the ranges so that there is good feed for sheep. R. McLERAN.

J. W. FERGUSON.

J. W. FREEMAN.

W. F. KAISER.

MISS JENNIE WILLIAMS.

C. H. SPROULE.

A. H. WISEMAN.

T. G. HERMAN.

MRS. ROSS LEWERS.

J. G. YOUNG.

JOHN H. SPENCER.

W. M. MOORMAN.

E. F. WOLEVER.

Green grass has sprung up on the ranges so that there is good feed for sheep. R. McLERAN.

JOS. T. WILLIAMS.

W. N. GRANGER.

JOS. FRENCH.

ALFRED DOTEN.

G. A. McAFEE.

GEO. SWALLOW.

O. WARNER.

RIOVILLE (October, 1903).—Mean temperature, 68.7; highest, 95, on the 9th; lowest, 42, on the 31st; greatest daily range, 45. Total precipitation, 1.30 inches; greatest in 24 hours, 1.06, on the 1st. Rainy days, 2. Thunderstorm on the 1st.

October (1903) Report, page 5:

ELY—Mean temperature, 46.5, should read 47.5.

PALMERTO—Mean temperature, 52.8, should read 51.2; mean maximum, page 6, 72.9 should read 69.7.

The Chief of the Weather Bureau has authorized the establishment of a voluntary observation station at Pioche, in charge of Mr. A. A. Carman, Postmaster, as observer, and at Geyser, in charge of Mr. A. D. Campbell, Postmaster, as observer.

75th Meridian Time.

PREVAILING HOURLY WIND DIRECTION FOR NOVEMBER, 1903.

Carson City	S NW	SW NW	SW	S	SW	SW	SW	SW	SW	SW	SW	SW	S,SW	SW	SE	SW	SW	SW	E SW	SW	SW	SW	SW	SW
-------------	---------	----------	----	---	----	----	----	----	----	----	----	----	------	----	----	----	----	----	---------	----	----	----	----	----

CLIMATOLOGICAL DATA FOR NOVEMBER, 1903.

Stations	Counties	Elevation feet	Length of record years	Temperature (degrees Fahrenheit)							Precipitation (inches)				Sky				Other remarks		
				Mean	Departure from the normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from the normal	Greatest in 24 hours	Total snow fall in inches	Number rainy days	Number clear days	Number partly cloudy days	Number over- cast days		Prevailing direction of wind	
Northern Section.																					
Battle Mountain-1	Lander	1,511	33	41.8	+7.2	80	2	13	9	58	0.90	+0.10	0.10	0	3	3	12	15	sw	Agent So. Pacific Co.	
Beowawe-3	Eureka	4,085	33	42.4	+5.2	73	1	18	9		1.05	+0.17	0.65	T	2				s	Agent So. Pacific Co.	
Carlin-3	Elko	1,897	33																	Agent So. Pacific Co.	
Crane's Ranch†	Elko	5,350	16								1.49	+0.83	0.80	0	2	15	11	4	w	W. T. Crane	
Elko-1	Elko	5,063	33	38.6	+5.4	63	8	5	9	51	2.05	+1.51	1.25	0	3	13	11	6	se	C. H. Sprinkle	
Fenelon-3	Elko	6,128	16																	Agent So. Pacific Co.	
Golconda-3	Humboldt	4,392	25	44.9	+3.9	70	7	23	10		1.10	+0.76	0.60	0	2	14	2	14	s	Agent So. Pacific Co.	
Halleck-3	Elko	5,229	31																	Agent So. Pacific Co.	
Humboldt-1	Humboldt	4,236	32	42.4	+1.8	68	6	11	18	48	0.30	+0.09	0.20	0	2	18	1	11	s	Agent So. Pacific Co.	
Lee	Elko		5								1.80	+0.29	1.28	T	5	11	10	6	se	Miss Jennie Williams	
Lovclock-1	Humboldt	3,977	12	43.1	+1.0	70	13	12	17		0.00	-0.07	0.00	0	0	19	6	5	sw	Agent So. Pacific Co.	
Mill City-3	Humboldt	4,225	15	39.2	-0.2	60	19	27	5		0.40	+0.18	0.40	0	1					Agent So. Pacific Co.	
Palisade-1	Eureka	1,821	22			89	3				0.77	+0.18	0.57	0	3	22	0	8	e	Agent So. Pacific Co.	
Quinn River Ranch-1	Humboldt	1,850	2																	F. M. Payne	
Tecoma-1	Elko	1,812	26	32.0	-0.7	60	6	1	8		0.98	+0.71	0.53	6.0	2	10	0	20	w	Agent So. Pacific Co.	
Toano-3	Elko	5,975	34	35.8	+3.3	54	24	14	26		0.00	-0.68	0.00	0	0	18	2	10		Agent So. Pacific Co.	
Wells-3	Elko	5,623	32																	Agent So. Pacific Co.	
Winnemucca-1	Humboldt	4,132	25	40.9	+3.8	68	3	11	9	45	1.24	+0.67	0.52	0	5	12	3	15	se	U. S. Weather Bureau	
Wood-1	Elko	6,000	4	39.6		69	5	8	9	51	4.82		2.41	0	8	9	12	9		A. H. Wiseman	
Eastern Section.				40.3	+3.1						1.21	+0.40			3	11	6	10	s		
Ely-1	White Pine	6,000	16	39.8	+6.4	64	2	7	17	42	0.36	-0.46	0.29	0	3	18	8	4	sw	Chas. S. Grunditz	
Hamilton-1	White Pine	7,977	3																	Mrs. J. F. Beck	
Monitor Mill-1	White Pine	6,400	5																	Jas. B. Orr	
Central Section.				39.8	+6.4						0.36	-0.46			3	18	8	4	sw		
Austin-1	Lander	6,594	15	43.4	+0.5	64	1	15	16	32	0.04	-0.53	0.04	0	1					H. W. Dyer	
Eureka-1	Eureka	6,990	1	43.5		69	3	10	17	15	T			T	0	17	5	8	n	D. M. Broy	
Potts-1	Nye	6,826	11	38.8	+2.4	69	22	10	9	47	T	-0.41		T	0	0	14	5	11	s	Miss Bessie Potts
Western Section.				41.9	+1.4						0.04	-0.47			1	16	5	9	s, n		
Carson City-2	Ormsby	4,660	24	44.1	+1.7	72	2	14	9	48	1.42	0.08	0.96	0	9	12	14	4	sw	C. W. Friend	
Carson City (W. B.)-1	Ormsby	4,720	14	44.1	+1.7	70	2	15	9	42	0.81	-0.69	0.52	0	6	12	6	12	sw	U. S. Weather Bureau	
Fallon-1	Churchill			43.8		70	4	11	9	49	0.80		0.80	0	1					Mrs. Ida Dolf	
Glenbrook	Douglas	6,282									2.38		0.75	0	9	14	16	0	sw	D. Couillard	
Lewers' Ranch‡-1	Washoe	5,200	16	45.6	+2.9	71	1	21	8	37	7.26	+4.13	2.30	0	11	11	14	5	sw	Mrs. Ross Lewers	
Martin's Ranch‡-1	Douglas	4,830	5	50.3		83	2	14	9	58	0.98		0.65	0	3	21	4	5	sw	Mrs. J. H. Martin	
Reno-1	Washoe	4,484	33	44.0	+5.7	70	1	18	16	41	0.31	-0.37	0.18	0	5	14	9	7	sw	State University	
eWabuska-1	Lyon	4,347	1	40.0		69	13	7	26	52	0.15		0.06	0	3	9	3	13	sw	J. H. Harcourt	
Wadsworth-1	Washoe	4,077	32	37.2	-2.6	66	1	4	26		T	-0.34		T	0	0			w	Agent So. Pacific Co.	
Southern Section.				43.6	+2.6						1.76	+0.82			5	13	9	8	sw		
Belmont-1	Nye	8,132	12	39.8		59	4	10	16	37	0.00		0.00	0	0	17	6	7	sw	W. N. Granger	
Candelaria-1	Esmeralda	5,783	14	47.0	+4.3	67	15	23	17	32	0.00	-0.12	0.00	0	0	17	9	4	s	A. G. Draper	
Caliente-1	Lincoln																			E. W. Clark	
Hawthorne-1	Esmeralda	4,569	16	46.4	+2.0	75	4	20	17	39	T	-0.39	T	0	0	7	6	17	s	T. G. Watterson	
McAfee's Ranch-1	Esmeralda	4,835		39.5		70	3	6	27	53	0.00		0.00	0	0					G. A. McAfee	
Morey-1	Nye	7,384		41.8		67	1	12	16	37	T		T	T	0	18	12	0	s	Jas. B. Gilmore	
Palmetto-1	Esmeralda	6,500	14	41.0	+2.5	67	23	5	16	50	0.00	-0.43	0.00	0	0	18	12	0	w	Wm. Oothout, Jr.	
Rioville-1	Lincoln																			Daniel Bonelli	
Silver Peak-1	Esmeralda	4,382	8																	Joseph Hand	
Sodaville-1	Esmeralda	4,665	5	46.9		72	4	20	17	42	0.00		0.00	0	0	6	15	9	sw	Agent So. Pacific Co.	
				43.2	+2.9						0.00	-0.31			0	14	10	6	s		
State Means				41.8	+3.3						0.67	-0.04			2	15	8	7	s		
Miscellaneous.																					
Modena (Utah)-1	Iron	5,470	2	40.1		68	22	13	17	43	0.00		0.00	0	0	15	11	4	w	U. S. Weather Bureau	
Independence (Cal.)	Inyo	3,957	6	53.2		75	4	30	27	34	T		T	0	0	13	7	10	nw	U. S. Weather Bureau	

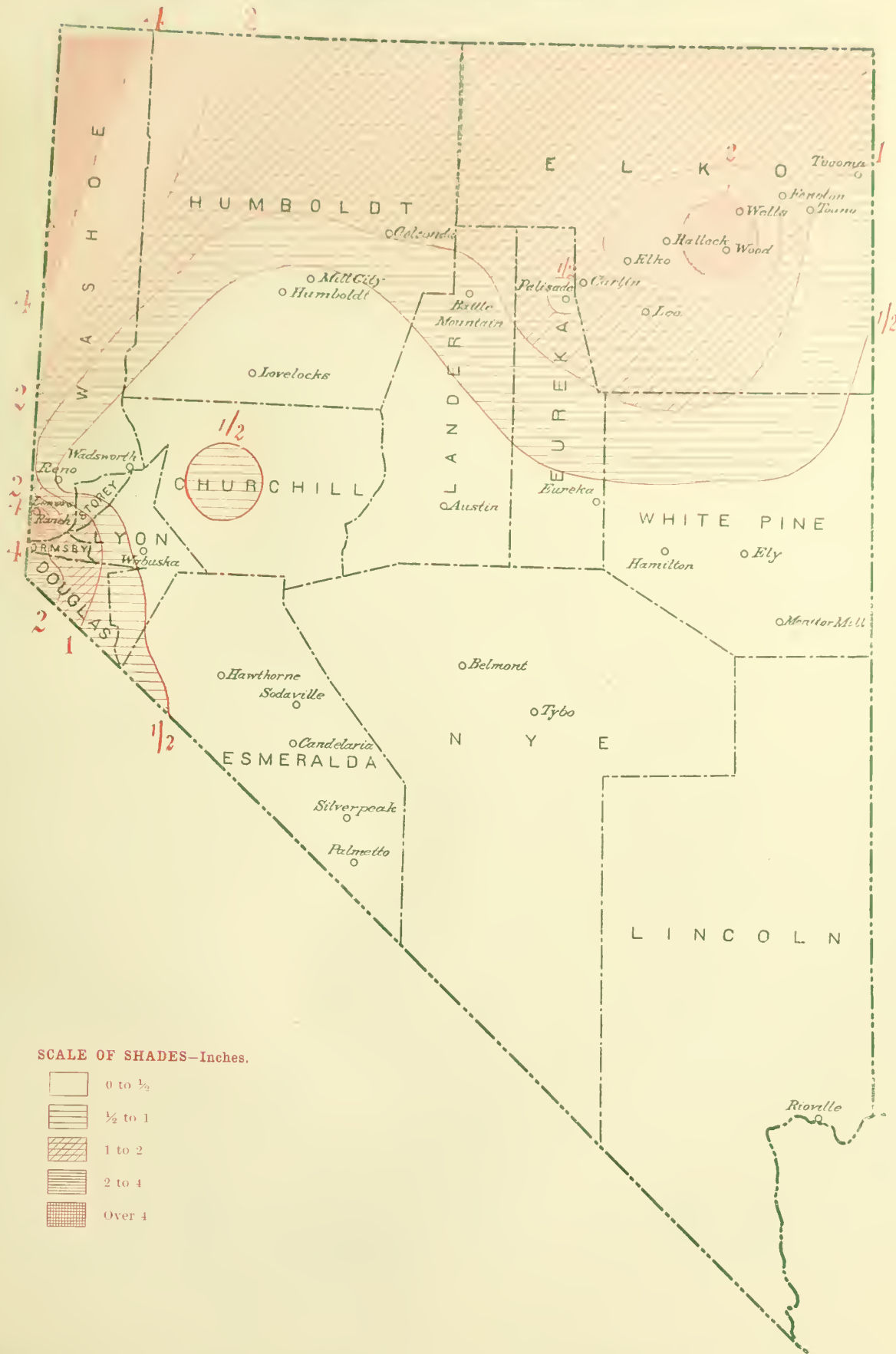
REFERENCES: 1, Weather Bureau maximum and minimum thermometers in use; 2, self-registering maximum and minimum thermometers, not Weather Bureau, in use; 3, means and extremes of temperature from observations by ordinary thermometers at 7 a. m., 2 p. m., and 9 p. m. A small letter placed before the name of a station, or against the data in the body of the form, indicates the number of days missing from the record; for instance, "n" denotes 14 days missing. *Italic figures* indicate that the maximum or minimum occurred on several dates. T indicates trace of precipitation. All records are used in determining State (or district) means, but the mean departures from normal temperature and precipitation are based only on records from stations that have ten or more years of observation.

* Not considered in computing State or district means.

† Postoffice—Elko. ‡ Postoffice—Franktown. § Postoffice—Gardnerville. || Postoffice—Elko. ¶ Postoffice—Amos.

*Extremes of temperature from readings of ordinary thermometer at 7 a. m., 2 p. m., and 9 p. m.

TOTAL PRECIPITATION FOR NOVEMBER, 1903.



DAILY PRECIPITATION FOR NOVEMBER, 1903.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1910.
Northern Section.																																
Battle Mountain												.30	.40										.20									0.90
Beowawe												.65	.40																			1.05
Carlisle												.80	.63																			1.49
Crane's Ranch												1.25	.75																			2.05
Elko																																1.10
Fenelon												.50	.60																			0.30
Golconda																																1.80
Halleck												1.28	.24	.04																		0.00
Humboldt																																0.40
Lee																																0.77
Lovelock																																0.98
Mill City																																0.00
Pallisade												.15	.57																			1.24
Quinn River Ranch																																4.82
Tecoma												.53	.45																			0.36
Toano																																0.04
Wells												.52	.43																			T
Winnemucca											.17	2.44	1.45																			T
Wood																																0.01
Eastern Section.																																
Ely												.06																				0.36
Hamilton																																0.04
Central Section.																																
Austin												.04																				T
Eureka																																T
Potts																																T
Western Section.																																
Carson City												.96	.08	.10																		1.42
Carson City (W. B.)												.52	.08	.04																		0.81
Fallon												.70	.18	.75																		0.80
Glenbrook												2.30	1.70	.70	.50																	2.38
Lewers' Ranch																																7.26
Martin's Ranch												.65	.18	.15																		0.98
Reno												.18	T	.08																		0.31
Wabuska																																0.15
Wadsworth																																T
Southern Section.																																
Belmont																																0.00
Candelaria																																0.00
Caliente																																T
Hawthorne																																0.00
McAfee's Ranch																																T
Morey																																T
Palmetto																																0.00
Rioville																																0.00
Silver Peak																																0.00
Sodaville																																0.00
Miscellaneous.																																
Modena (Utah)																																0.00
Independence (Cal.)																																T

T indicates trace. * Precipitation included in that of following day.

CARSON CITY, NEVADA:

STATE PRINTING OFFICE, -  - ANDREW MAUTE, SUPT.

1903

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